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High School Students' Knowledge of Careers and Non-College Post-Secondary Options

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Chapter 1: The Problem and its Consequences

This chapter provides an overview of the problem: high school students in America lack knowledge about careers and non-college post-secondary options.

This chapter also discusses some of the consequences of this problem.

Throughout the thesis, I will use research, statistical evidence, observational information, published reports, books, and quotes from professionals to support this claim, explain the consequences behind the problem, its causes, and some reform attempts being made to solve this problem.

The inspiration for my thesis comes from my experience as a white, upper-class student at a private, college preparatory school in Connecticut called Loomis Chaffee. My experiences at this school have led me to believe that college is emphasized too much and that there needs to be more talk about careers in high school. While at Loomis, I noticed that there was a constant disconnect between coursework and careers. In my high school, the majority of my friends did not know what careers they wanted to pursue or what was available to them. Few, if any, of my classes spoke at all about careers. While we learned all about Shakespeare and algebraic equations, we never once learned about how knowing the Pythagorean Theorem or writing a sonnet related to careers. The material we learned seemed both irrelevant to and disconnected from the world of work.

Aside from learning seemingly irrelevant material – material that my professors did not connect to real world careers – we also never learned about what careers were available to us and what post-secondary paths we could pursue

beyond the traditional four-year college or university. I left high school convinced I wanted to be a forensic psychologist, and after three years in college I realized I was not even interested in psychology, let alone forensic psychology. The reason I left high school wanting to be a forensic psychologist was not because my school had introduced this career to me but instead because I had a glorified idea of the job through shows like *Law & Order* and *Criminal Minds*. If my school had provided me with knowledge of this career or of careers in general, then I might not have pursued forensic psychology in college. This problem of lacking knowledge about careers is a problem happening across the nation.

Multiple reports and surveys have found that students lack adequate knowledge about careers and that they “need more information in order to make better career choices after high school” (*The 70-percent*, 2004, p. 33). The AT&T Foundation and the John J. Heldrich Center for Workforce Development at Rutgers University sponsored a 2004 report called “The 70-Percent Solution: Five Principles for Helping Young People Make Better Choices During and After High School” that explored the transition from high school to careers and emphasized the importance of career education in high school. This report found that “as...students approach the critical turning point of high school graduation, they are ill-prepared to understand the complex nature of careers and work in today’s economy. Carl Van Horn – lead author on the study – said that American schools “are failing our children...by not really helping them understand the world of work and how education relates to it” (McAleavy, 2004, p. B03). They do not fully understand the array of educational and training choices that could help them

achieve their goals and aspirations” (*The 70-percent*, 2004, p. 7). Many cannot see the connection between what they are doing in high school and what they will be doing after they leave high school. There is a “wall between classroom experiences and how education translates to jobs and opportunity in the U.S. economy [that has yet to be] brought down” (McAleavy, 2004, p. B03).

In 2002, the Ferris State University Career Institute for Education and Workforce Development became interested in career-readiness of high school students and conducted a survey of 800 high school juniors and seniors nationwide. The survey found that most of the respondents were receiving little to no career guidance outside of their home and were not pursuing educational plans that were relevant to or beneficial for real world career opportunities or business needs. 68% of the survey’s respondents said they were planning to attend a four-year college while past studies have shown that only a fraction of these students actually graduate from four-year colleges with a bachelor’s degree. 41% attributed a sense of embarrassment regarding vocational education training programs, while 45% said that pursuing technical training might limit their career options. More evidence of this problem can be seen in Atlanta, Georgia where only 66% of high school students are aware of technical college programs and only 4% of high school students take classes at technical colleges (Millar, 2007, p. A23).

The Ferris State survey revealed that many students do not have knowledge about what careers are available to them and that their “career choices [are] most often based on personal interest over career opportunity” (*On their*

own, 2002, p. 1). High school students struggle to connect their education to their post-secondary choices and therefore tend to make uneducated choices after they graduate. According to Ferris State University President William Sederburg, when high school students make career choices, they make them “in a vacuum, unaware of the broad array of educational and employment opportunities available to them” (*On their own*, 2002, p. 1). They often make post-secondary plans – such as choosing a major in college – without any real knowledge of how these plans will flesh out. In 2003, the Heldrich Center surveyed New Jersey high school students to find out how prepared these students felt for careers. The survey further proved that many high school students are confused about careers. Findings “indicated [that] few students have a clear understanding of how they can make the most of education post-high school to prepare for their careers” (*The 70-percent*, 2004, p. 14). Furthermore, “while the majority of [the surveyed] students (96 percent) reported that they planned to attend college after high school to prepare for a career, only 10 percent said they are very familiar with the types of jobs in the fields for which they plan to prepare” (*The 70-percent*, 2004, p. 14).

This overall lack of knowledge about careers is detrimental to students and to the country as a whole. Whether or not students choose to attend a traditional four-year college, it is important for them to be exposed to careers so that they will be more equipped to enter the post-secondary world. The focus on college readiness, which is discussed in the next chapter, underscores the importance of non-college post-secondary education. As a result, “only about 4 in 10 Americans have obtained either an associate’s or bachelor’s degree by their mid-twenties

[and] roughly another 10 percent have earned a certificate” (*Pathways to prosperity*, 2011, p. 6). Furthermore, “only 40% of 27-year-olds have earned an associate’s degree [A.A.] or higher” (*Pathways to prosperity*, 2011, p. 10). At community colleges – America’s largest post-secondary system – less than 30% of students earn an A.A. degree on time, which is within three years. These dismal attainment numbers show that in this country there are a large number of individuals who have no degree or certificate and therefore are at a great disadvantage when trying to find employment.

These disheartening numbers can also be seen at the college level as, according to the Organization for Economic Cooperation and Development, the United States currently “has the highest college dropout rate in the industrialized world” (*Pathways to prosperity*, 2011, p. 10). Although “nearly 70 percent of high school graduates...go to college within two years of graduating...only 55 percent...attain a bachelor’s degree after six years” (*Pathways to prosperity*, 2011, p. 6). “The majority of students who go on to college fail to earn a degree on time – [within four years] – and many of those never successfully complete their degree” (*Pathways to prosperity*, 2011, p. 10). If the above numbers remain the same, the United States may lose its competitive edge as hoards of young people will go unemployed, which will in turn hurt the American economy. As other countries, specifically those in northern and central Europe, place significantly more emphasis on career exploration than the U.S., they have gained much ground over us in the past 15 years. In high school graduation, the U.S. has fallen from 1st to 13th place (*Pathways to prosperity*, 2011, p. 17) and our college

completion rank – the percentage of 25- to 34-year-olds with an associate's degree or higher – is 40.4% and has declined significantly, with 11 countries above us (*Pathways to prosperity*, 2011, p. 17).

The above statistics imply that high school students are not adequately prepared for reasonable success after high school, whether that is careers or further post-secondary education. Although there are many causes to this problem, the increasing emphasis on college for all plays a significant role. While “behaving as though four-year college is the only acceptable route to success...works well for many young adults – [such as those that attend highly selective colleges and universities and affluent students with family and social connections] – it does not work well for [all]” (*Pathways to prosperity*, 2011, p. 13). The narrowly defined college for all goal does not give room for a strong focus on career-oriented programs or non-college post-secondary options that lead to occupational credentials and it therefore harms those students who will not or cannot attend a four-year college or who have a slim chance of succeeding in college; in fact, “fewer than one in three young people [actually] achieve [this] dream” (*Pathways to prosperity*, 2011, p. 9). One of the opportunity costs of the college-for-all norm is that “students with little prospect for getting a college degree will fail to get vocational training” (Rosenbaum, 2001, p. 81) and will enter the world of work confused about what they want to do professionally, and unaware of how to pursue their career goals.

This lack of knowledge about careers is a significant problem happening across the country that has multiple causes, which will be discussed in the next chapter.

Chapter 2: The Causes

This chapter discusses the causes that contribute to many students' lack of knowledge about careers. The causes that will be discussed in this chapter are: 1) the historic tension between vocational education and traditional academic education, 2) the college-for-all mentality, 3) the standards movement, 4) the institutional factors of American high schools, and 5) the psychology of adolescents.

Historically, this lack of knowledge about careers is not a new problem but instead is one that has been inherent in the American education system. There has long been a tension between vocational education and traditional academic college-preparatory education. In 1892, the National Education Association formed the Committee of Ten on Secondary Studies – a working group of educators, primarily from colleges and universities across the country – in response to the need in the late 1800's for educational standardization in American high schools. The Committee was divided into subject-area groups staffed by professors and teachers of those subjects (Wiggins, 2011, p. 28). The group “made recommendations for standardizing both secondary schools' college-preparatory curricula and colleges' admission requirements” (Oakes, 1985, p. 17).

Chaired by Charles William Eliot, the president of Harvard, the Committee argued that a college-prep education with multiple years of Latin and Greek was appropriate for all students. They recommended twelve years of education with eight years of elementary education followed by four years of high school education. Regardless of their further educational plans or careers, all

students would be taught under these recommendations. The recommendations were generally interpreted as a need to teach English, mathematics, and history or civics to all students in each academic year in high school and were adopted by many schools systems in the country. These recommendations also formed today's model of teaching biology, chemistry, and physics throughout high school.

Then in 1918, the Commission on the Reorganization of Secondary Education produced the report *Cardinal Principles of Secondary Education* as a deliberate counterbalance to the Committee's work. The report "attempted to outline a curriculum that would provide something for everyone." It was intended as a desperately needed answer to the following question: how well does the high school curriculum prepare all students for their adult lives? "The Cardinal Principles...were intentionally external to the traditional subjects and were based on an understanding of the broad mission of schooling as enabling individuals to better themselves and society" (Wiggins, 2011, p. 28). They proposed 7 "main objectives – [called the cardinals] – of [secondary] education: 1) health; 2) command of fundamental processes (reading, writing, arithmetical computations, and the elements of oral and written expression); 3) worthy home membership; 4) vocation; 5) citizenship; 6) worthy use of leisure; and 7) ethical character (Wiggins, 2011, p. 28). It is important to note that one of the objectives was vocation, as this plays into the tension that exists today. This current tension is no longer between the Committee and the Commission but is instead between the two competing views regarding high school education – 1) the view that a

college-prep, academic education is necessary and beneficial for all high school students, and 2) the view that vocational education or career exploration is necessary and beneficial for all high school students.

Almost a century later, the education system has not changed much. The 1892 Committee's work can still be seen throughout many American high schools as the bulk of high school curricula are based upon a set of subject areas considered necessary for college preparation. Furthermore, the historical tension still remains in our education system as debates ensue over what is the most important for a high school education: the traditional, college-prep academics or vocational education and career exploration. This pattern, however, has played out differently for white students and for students of color. Though there has been an overall emphasis on academic classes, this emphasis has not been applied equally to all students and has created educational inequality.

In the 1900's, the country experienced a population explosion as hoards of immigrants, often unemployed and poor, came to America. Consequently, student enrollment increased dramatically and the kinds of students also changed profoundly, "especially in urban schools [where] the overwhelming predominance of white Anglo-Saxon middle-class youngsters" was replaced with white ethnic groups and low-income, minority students. Confronted with this change, education administrators settled upon a "comprehensive high school – a new secondary school that promised something for everyone, but, and this was important, that did not promise the *same* thing for everyone" (Oakes, 1985, p. 21).

Out of this arose curriculum differentiation and ability grouping and tracking, which called for different learning for different types of students.

Either implicitly or explicitly, schools began sorting their students into two tracks: the college-bound track and the non-college-bound, working-trades track. City school administrators differentiated between the needs and educational potential of poor children, specifically those of color, and those of white, middle- and upper-class children, and the tracks were segregated among these class and racial lines. Academic education with college preparation was reserved for the middle- and upper-class students while vocational education was reserved for the lower-class students. Many educators believed that affluent children were “abstract thinkers, head minded, and oriented toward literacy” while lower-class children were “laggards, ne’er-do-wells, hand minded, and socially inefficient, ignorant, prejudiced, and highly excitable” (Oakes, 1985, p. 35). Such beliefs perpetuated the inequality within American schools.

Due to this historically segregated tracking, many people are now hesitant to incorporate career exploration programs into high schools because they worry about repeating the past. The college-for-all mentality – the belief that all students should attend traditional four-year colleges or universities – has emerged out of a desire to set high expectations for all students, regardless of class or race, and a need to protect against the inequality that schools previously had created and reinforced through segregated tracking. Inner city schools – such as those in Chicago, which I mention later in this chapter – in particular may try to promote college for all students because they want to set high expectations for the low-

income minority students that many people historically have not expected to go to college. Part of this mentality arises from the need to ensure that students' class background, family education level, and race do not lock them into the kinds of jobs that their demographic has historically held. It is important that high schools' efforts to integrate career exploration programs do not replicate the inequality of the past.

Despite noble intentions among educators, the college-for-all movement has played a large role in the fact that many students lack knowledge about careers. While this is not a recent phenomenon, as discussed above, it is one that is still dominant now, if not increasingly predominant, as college diplomas are viewed as a golden ticket to a successful life. While there is an increase in talk about the need for job preparation and career education in American high schools, the college-for-all trend still permeates the nation. Many parents, students, teachers, education administrators, and the public support this mentality and strive to spread the college-for-all message across the U.S. – they both support and promote the idea that college is the best and only alternative after high school, the one that students should aspire to as it is perceived to be necessary for success.

The education system as a whole – including teachers, principals, education administrators, and the schools – contributes to the college-for-all mentality as many schools urge students to go to college and center the school atmosphere around college. This emphasis on college is evident in America's high schools. In Chicago public schools, for example, the college banners and posters that plaster the walls “underscore an ongoing tension about the value of career

and technical education in a society that promotes a bachelor's degree as the best route to a good job" (Karp, 2009, p. 10). These displays show the college-for-all atmosphere of these public schools, where "the push for college has taken center stage, putting career education on the back burner" (Karp, 2009, p. 10).

In her book, *Success Without College*, Linda Lee says that many parents, students, and the public believe strongly in the college-for-all mentality. Many parents see college as a stepping stone towards a successful future – something that their children *need* to do in order to lead successful lives. They strive to send their children to college because they do not want their children to have to do the jobs of the "working class" – jobs they would be ashamed of. While parents send their children to college because they believe it is their best option, students often go to college because they feel pressured and believe that it is their only alternative after high school. In 2006, an 8th grade student was quoted in a newspaper in Arlington, Texas saying, "College is like your life. If you don't go to college...you can't live a successful life" (Schlack, 2007, p. 52). Too many students believe this and they therefore may feel like failures if they do not go to college directly after high school.

Beyond feeling pressured, Linda Lee says that students also feel entitled to college, seeing it more as a privilege than a means to a better education. Many students no longer go to college just so that they can learn more but instead they go in order to fit in, to be seen as important, to get a high-paying job, and to get the "college experience." Fran Reiter – Rudolph Giuliani's deputy mayor for economic development – says that college has "become a status thing, like

wearing a logo on your shirt’” (Lee, 2000, p. 163) – something that students do in order to be accepted. Furthermore, according to Kenneth Gray – a professor of education at Pennsylvania State University – students “see their college degree as getting their ticket punched” (Lee, 2000, p. 163) on a road towards what they believe is a very successful future.

It is not just parents and students that buy into the college-for-all message; the public is also fascinated by college. Mr. Zachary Karabell – a professor at Harvard and Dartmouth and author of *What’s College For?* – said that “the public...retains romantic notions of college and...sees a college degree as a special achievement” (Lee, 2000, p. 8). Much of the public thinks that getting a college degree is essential for future success in careers and that it guarantees a high income and impressive class status. Reiter said that “people can get very hung up on a degree” (Lee, 2000, p. 163). While she thinks education is important and would not “discourage someone from going to college who wanted to go,” she also knows that “[college] doesn’t speak to becoming a successful human being. There are lots of ways of becoming an educated person’” (Lee, 2000, p. 163) beyond obtaining a bachelor’s degree; however, many often do not realize that, which leads to this emphasis on college and students making poor choices after high school.

The college-for-all mentality affects middle, upper-class and low-income students very differently. In middle- and upper-class families, “[the children] have nothing more in mind than just...going to college” (Lee, 2000, pp. 7-8) and these families often have “romantic notions of success through college. Many middle-

class parents buy homes in school districts [that assure] that 85 to 90 percent of graduates go to college – and where no guidance counselor would dare suggest otherwise” (Rosenbaum, 2001, p.81). These parents often pay up to or more than \$20,000 per year for their children to attend private prep schools – schools with matriculation rates close to 100% - that will guarantee [their students] get into top-notch colleges (Rosenbaum, 2001). Many of the students at these schools come from wealthy, white families where the parents’ education level is high – a bachelor’s degree or more – where college tuition is not a significant barrier for them, and where a college degree is expected.

The story is much different for low-income minority students in inner cities who often come from families that lack post-secondary education and do not have the funds to send their children to colleges with increasingly expensive tuition. These students “are [the students] most likely to struggle [and drop out of] school” (*Pathways to prosperity*, 2011, p. 4). They are the students that “need the supports that employment provides” and therefore need to learn about careers while they are in high school (*Pathways to prosperity*, 2011, p. 4). But the problem is that many of these students do not gain this knowledge and instead spend the bulk of their high school years doing work they do not believe is related to real-world careers; they often see the coursework as irrelevant because the teachers do not always demonstrate how the material pertains to careers, and consequently there is a disconnect between the high school world and the work world. Adria Steinberg, in her book *Real Learning, Real Work*, says that “students take course after course with no idea about how any of this knowledge is used by

real people in the real world; with no description of the actual jobs that people might do where any of these skills or knowledge might come in handy”

(Steinberg, 1998, p. 68). They often do not know what jobs are available to them or what careers they are interested in. When students see their education as irrelevant, they tend to lose interest and drop out of high school because they “are frustrated by an education they often find...removed from the world of work” (*Pathways to prosperity*, 2011, p. 13).

Although these low-income minority students in particular would benefit greatly from employment after high school, this does not mean that this should be their only alternative. They should still learn about all post-secondary options, including college because this could be the best option for some of them. Furthermore, it is important for all students, not just low-income students, to learn about non-college post-secondary options so that they can understand the wide array of options available and can choose the one that suits them best. What they need is not just college promotion, but also a relevant high school education combined with real work experience. It has been shown that “employment in the teen and young-adult years [has] a very positive impact on future prospects for employment and earnings. Teens who have good high school work experiences are more likely to be inspired to stay in school, graduate, and adopt ambitious goals” (*Pathways to prosperity*, 2011, p. 5). The focus in high school needs to be on *both* college and career and not one or the other so that students can be prepared for either option. High schools should combine classroom-based academics and hands-on field experience, while focusing equally on four-year

colleges, non-college post-secondary options, and career exploration; this type of education can engage all students and increase the likelihood of decreasing the dropout rate.

The current emphasis on traditional academia combined with a lack of a relevant high school education can be seen in the standards movement that has recently evolved. Federal leaders have begun to push for both college and career-ready standards. The Common Core State Standards Initiative (CCSSI) has risen out of this movement, designed to “provide a consistent, clear understanding of what students are expected to learn” (Common core state, 2010). This initiative is a program led by the Council of Chief State School Officers and the National Governors Association and is supported by 48 states. The initiative has enlisted committees of experts to compose a draft of knowledge and skills that they believe are required for “entry-level, credit-bearing college work” (Gewertz, 2010, p. 24) and workforce skills necessary for jobs with growth potential and good salaries. Some of the subjects outlined in the CCSSI standards are algebra, geometry, biology, chemistry, philosophy, and art among many others.

While the CCSSI’s mission statement says that the standards are designed to be relevant to the real world and to prepare students for careers, many of the standards do not reflect that mission. When taking a closer look at the standards, one can see that many incorporate traditional academic subjects. For example, the English language arts standards include topics such as writing narratives and learning vocabulary while the mathematics standards, which have not changed in 45 years, require “four years of conventional topics in algebra, geometry,

trigonometry, and calculus” (Wiggins, 2011, p. 28). While it may be important to know the Pythagorean Theorem or how to interpret a poem, students often do not learn these topics’ relevance to careers – for example, the fact that the Pythagorean Theorem can be used as a tool in calculating distance in construction – which is what they should be learning; the CCSSI includes these topics in their standards but it does not discuss them in the context of career-relevant information. These subjects, among many others in the CCSSI, are those that have been traditionally taught in American high schools but are seen by many students as irrelevant to and disconnected from the world of work.

Nowhere in the standards can one find anything about actually teaching students about careers. The standards seem more focused on skills, possibly even career-relevant skills, but they do not focus on developing knowledge about careers. When determining high school standards, it is important to know that students do not just need workforce skills, but that they also need to know what their career options are, what careers are available to them, and what careers they may be interested in – the CCSSI standards, however, do not address this gap. These standards have set a tone for many high schools, which can be problematic. “By concentrating too much on classroom-based academics, [many schools have] failed vast numbers of students, who instead need solid preparation for [and knowledge about] careers” (Gewertz, 2010, p. 24).

Unfortunately, many students are not receiving enough information about careers, which leads them to enter the post-secondary world without a high school diploma and without career knowledge; research shows that these students then

struggle to find post-secondary employment or to pursue any type of post-secondary education. Just “9 percent of low-income black teens are employed, as are just 15 percent of low-income Hispanic teens. In sharp contrast, the employment rate among upper middle-income white teens (whose families earn \$75,000 to \$100,000 a year) is 41 percent – four times higher than among low-income black teens” (*Pathways to prosperity*, 2011, p. 4). In addition, “only 30 percent of African-Americans and fewer than 20 percent of Latinos in their mid-20s have an associate’s degree or higher” (*Pathways to prosperity*, 2011, p. 6). The consequences of this are damaging to the students and to the American society. Low-income teenager males that struggle to find work may be “more likely to get into trouble with the law, while their female counterparts may be more likely to become single mothers” (*Pathways to prosperity*, 2011, p. 4). These effects are deleterious to society and often follow a cyclical pattern.

College should not be the only thing promoted in high school, but post-secondary education in general – such as obtaining an associate’s degree – should be promoted because this is becoming increasingly important for success in the 21st century workforce. “In this unforgiving economy, successfully completing a post-secondary degree – [whether it be a degree from community college, a four-year school, a vocational school, or an apprenticeship program] – offers young adults the best insurance that they will find work” (*Pathways to prosperity*, 2011, p. 5). There is a growing reluctance among “some of the nation’s most prominent companies and business organizations...to hire young people with just a high school degree” (*Pathways to prosperity*, 2011, p. 4) because they believe that

these “young adults are not equipped with the skills they need to succeed in the 21st century workforce” (*Pathways to prosperity*, 2011, p. 4). What the American education system needs to emphasize is not college enrollment but post-secondary education in general. President Obama has said that “the ‘college for all’ rhetoric...needs to be significantly broadened to become a ‘post high school credential for all’” (*Pathways to prosperity*, 2011, p. 6). It is quite difficult for one to obtain a career without any background in that career and without the credentials to back them up. Employers want to hire people who know what they are doing and who have the necessary skills for that particular job; they do not want to waste time training their new hires in basic skills they should already have. Instead of going to college to earn a bachelor’s degree, students can go to community college or participate in an apprenticeship program and earn an associate’s degree or a certificate, both of which are very useful in obtaining a career. High school students should be learning about all of these post-secondary options.

While the college-for-all mentality is a leading cause of students’ lack of knowledge about careers, the structure of many American high schools – the need to increase matriculation rates and the poor quality of career and guidance counseling – also contributes significantly to this problem. Many education administrators believe that in order for a high school to be attractive, the school must emphasize college. In an effort to boost their school’s reputation and to compete with other high schools, principals and superintendents try to market themselves by increasing matriculation rates. An example of this can again be

seen in Chicago. In the Chicago public schools in the 1990s, Superintendent Argie Johnson urged the high schools to stress college goals and then either closed or withdrew resources from many of their vocational programs (Rosenbaum, 2001). The Chicago Vocational Schools then began to stress college preparation, instead of career preparation, as their main goal. Of this, James Rosenbaum – author of *Beyond College for All* – has said that in order to fit the college-for-all norm, the superintendent had to urge more students to attend college because that was politically popular. The superintendent's desire to stress college also reflects a desire to improve the school and school district's reputation in a competitive education system where college promotion can make a school more appealing to students and parents. Furthermore, as mentioned before, the eagerness to promote college for all has origins in efforts to oppose historical segregated tracking and a perceived need to put students on a college-bound track in order to fight the educational inequality of the 1900s.

The inadequacy of career and guidance counseling has also attributed to the problem as counseling often suffers from a lack of resources, low student-counselor ratios, and the tendency of counselors not to focus enough on careers. In its February 2011 report *Pathways to Prosperity*, the Harvard Graduate School of Education claimed that “America's current system of career guidance and counseling is wholly inadequate, and many adolescents receive virtually no useful guidance” (*Pathways to prosperity*, 2011, p. 26). There may be many guidance counselors that want to prepare their students for careers but if they lack the resources and support from their schools then they are not able to do that. Schools

often lack the resources and money necessary to hire enough valuable career counselors. This contributes to shockingly low student-counselor ratios and the fact that there are nowhere near enough guidance counselors in high schools; “the average ratio of students to counselors is nearly 500 to 1, a load that would strain even the most dedicated professional” (*Pathways to prosperity*, 2011, p. 26).

Additionally, in many schools, the guidance counselors do not actually provide career counseling but instead they are more interested in students’ personal, psychological, and social issues or they only provide advice and resources for college preparation. At my own high school, the guidance counselors did not provide any information about careers but instead worked intensely with the students to develop a detailed college plan. They spoke only of SATs, ACTs, and college applications but not once about careers.

High school students themselves can also be held accountable for their lack of knowledge about careers. Students at this age are still in their adolescent and teenage years and have not fully matured yet. Their brains are still developing, and they may not be mentally mature or future-oriented enough to think about their professional futures. Students at this age tend to be more preoccupied with hanging out with their friends than with their high school coursework, let alone post-secondary education or careers. In the article, “Choosing High School Courses with Purpose,” Steve Ayotte and Sharon Sevier discussed what happened when they visited a high school counseling office and observed a counselor help a student choose a course to fill a hole in her schedule. The counselor listed a variety of courses that had openings during her time slot

and the student first asked which course was easiest and then asked which courses sounded boring, but she did not once mention her post-secondary plans (Ayotte & Sevier, 2010).

“In choosing high school courses, students often seem to focus on everything except preparation for an intended major or career. They consider graduation requirements, weighted classes, [and] easy classes” (Ayotte & Sevier, 2010, p. 20) but they are not making the types of choices that can prepare them for careers or post-secondary education. Of the student’s decision, Ayotte and Sevier said, “That's like shooting a dart at a target blindfolded, and that type of decision making is what can lead high school students to confusion after high school; this is the same thing that leads college freshmen to that awful realization of: "Oh my gosh. . . I hate this major. . .what do I do now?" (Ayotte & Sevier, 2010, p. 20). This is exactly why students need to learn about careers and non-college post-secondary options early on so that they can gain a better awareness of careers and make mature decisions regarding their post-secondary plans.

To summarize, many high school students lack knowledge about careers and non-college post-secondary options. This problem has multiple causes: 1) the historical tension between vocational education and traditional academia, 2) the prevailing focus on college, 3) the current standards movement, 4) the institutional factors of American high schools, and 5) the psychology of high school teenagers. As a result of this problem, many students drop out of high school, do not pursue any type of post-secondary education, and therefore fail to find employment. If this problem is to be fixed, it is important to ensure that all

students, not just low-income minority students like in the past, explore careers throughout their high school years.

Chapter 3: Reform Attempts

This chapter presents information about high schools and organizations making efforts to introduce students to careers and non-college post-secondary options. The following section provides examples of schools and school districts that are implementing career exploration programs into their high school curricula. The second section presents information about organizations that are partnering with schools in an effort to provide career exploration to high school students. Some of the reforms mentioned below use vocational education as a path to career exploration.

Schools' Reform Attempts

Some prominent examples are practical and can be seen in California schools and school districts. “High schools [there] are grappling with relevant teaching” (Noceda, 2009) and are trying to connect the high school experience to real-world careers. The James Irvine Foundation – a California organization devoted to helping students build a strong foundation for college and career success – conducted a survey that found that 9th and 10th graders “at risk for dropping out said they would be more motivated if their academic work was more closely tied with preparing them for college and careers. Some 91% said they would work harder and do their best in that kind of setting” (Bartindale, 2006, p. 1). In response to the Irvine Foundation’s survey and other research suggesting that high school students who see a connection between their studies and their futures are “more likely to persevere and graduate” (Bartindale, 2006, p. 1), California high schools have begun developing “academically rigorous, hands-on

career and college preparation programs to keep students engaged and in class” (Bartindale, 2006, p. 1). These high schools are trying to give students knowledge about *both* college and careers so that they are adequately prepared for post-secondary success whether they choose to go to a four-year college, obtain an associate’s degree, or go straight to work.

In 2006, with a \$6 million grant from the James Irvine Foundation, ConnectEd: the California Center for College and Career opened as a program designed to make strong, clear connections between students’ academic courses and their technical and career courses. The center focuses on 15 career fields, including engineering, biomedical and health sciences, arts, entertainment, and communication among others.

ConnectEd’s founding President Gary Hoachlander said that the center “will work primarily in four areas: developing model programs to show schools what strong career and college programs look like; addressing policy barriers, such as funding; providing professional development to show teachers new ways to connect technical fields and academics; and establishing a resource center where schools can turn for data, research, curriculum materials and other support” (Bartindale, 2006, p. 1). Talking about ConnectEd, the San Jose Unified School District Superintendent Don Iglesias said that “it’s not college or career; it’s both [and] it’s about time someone recognized that” (Bartindale, 2006, p. 1). Ramon Cortines – a former schools superintendent in San Jose, San Francisco, and New York, and a member of ConnectEd’s board – knows that “students really want to connect what they are learning to some sort of career...and for too long [people

have] separated the two” (Bartindale, 2006, p. 1). He believes that ConnectEd provides an opportunity to engage all kinds of students.

In Los Angeles, especially, many school districts support career exploration. There are 160 magnet programs in the Los Angeles Unified School District where participating students take regular academic courses while receiving specialized training in one focus area, including medicine, science, law enforcement, performing, and many others. Of the magnet schools, Sharon Su – a 17-year-old who works in the Fashion Center Career Center – said that “[the center] has the hands-on experience we need to go out into the real world. I came here knowing nothing about fashion, and now I know a lot more than other students” (Sanchez-Palacios, 2000, p. B2). Students involved in these programs gain valuable skills that can put them at an advantage over their fellow students that have not had exposure to careers. They are prepared to enter the career fields of their choice because they have gained extensive knowledge and have practiced the necessary skills for those careers.

In the San Lorenzo Unified school district, students are introduced to relevant, career-based education in middle school when they are surveyed by teachers and subsequently placed into a matching community, called a small-learning community, in high school based on their career interests obtained from the survey. The small learning communities in this district are: Bay Area Digital Arts; East Bay Arts High School; Future Leaders for Social Change; Green Engineering and Technology (GET); Law, Language and Culture Academy (LLC); Tech Links; The Academy of Health and Medicine; and Transportation,

Engineering and Design Academy (TREND). Gretchen Livesey, the small-learning communities' coordinator in the district, said that "whether it is going to college or entering the workforce right after high school, we want to be able to give students that option" (Noceda, 2009).

Bay Area Digital Arts (BADA) is located on the San Lorenzo High School's campus and has a focus on the digital arts. Students at BADA learn how to work with current technology to make movies, music videos, commercials, documentaries, and websites. The East Bay Arts High School is a college preparatory school that exposes students to performing, visual, and electronic arts; although its main purpose is college preparation, it still introduces students to careers in those fields and therefore does aid in career exploration. The Future Leaders for Social Change Academy, located on the Arroyo High School campus, is also a college-preparatory program with an integrated, social-service curriculum. At the Future Academy, sophomores and juniors participate in local internships and all students are paired with a mentor from a service organization who they work with on site. Also located at Arroyo High School, Tech Links Academy uses an integrated curriculum to teach both business administration and computer technology. Students can participate in job shadowing and placements and form mentor relationships with business partners in the local community. Classes at Tech Links prepare students for careers in computer-based fields and students choose to follow one of three elective pathways: computer science, business science, or biotechnology. The Academy of Health and Medicine at Arroyo High School prepares students for careers in the health care fields. The

Transportation, Engineering and Design Academy (TREND) at Arroyo High School prepares students for careers in the transportation and general engineering fields.

San Lorenzo's communities have seen some success as Arroyo High School junior Tiffany Sims believes that she is on her way to making her childhood dream of becoming a physician a reality. In the past year, she has shadowed and been mentored by local health care professionals and says, "I feel like one of them and...like a young professional. I'm growing up to be what I want to be without being in the career yet" (Noceda, 2009). Students in these communities and in other career exploration programs throughout California get the field experience necessary to determine their career interests and prepare for their professional futures.

In Stevenson Ranch, CA, West Ranch High School also provides various opportunities for students to learn about careers. Alongside guest lecturers, mock interviews, and career counseling, students have the option to choose a career path – such as journalism, health, or filmmaking – with a specific set of courses for their four years. The school also offers on-site vocational classes, including consumer math, marketing, graphic design, digital animation, computer programming, culinary arts, library science, journalism, web design, photography, and videography. They also have a program where participating students can take classes at the nearby community college while interning at a local business, and a Junior ROTC program that helps expose students to non-college post-secondary options (Sean Herron, personal communication, November 29, 2010).

While California is making strides with career exploration, efforts can also be seen in other states throughout the country, such as in Weare, New Hampshire at the John Stark Regional High School. Although John Stark Regional High offers 12 AP classes and requires everyone to complete the common application and write a college essay before graduation, they also offer a variety of career exploration programs. The school uses a vocational training program center at Concord High School – a public high school in the capital of New Hampshire – where students can participate in a variety of career programs, such as automotive technology, childcare, culinary arts, graphic arts and digital communication, cosmetology, information technology, construction, criminal justice, exploring teaching, and health and sciences technology. Instead of attending their regular classes, participating students use four of their eight potential school blocks to go to the center (Sarah Walton, personal communication, November 29, 2010).

For those students not in the vocational program at Concord, John Stark has other avenues through which students can explore careers. In order to graduate, all sophomores have to attend a career center for at least one day to learn about various career options, all students must complete a job shadow project, and all seniors are required to complete a job shadow/reflection of their choosing. The school offers elective courses based on careers such as metal working, woodshop, fashion design, and culinary arts. There are two career exploration programs offered called Project Lead the Way and CISCO that provide students with computer engineering and networking classes. CISCO is a computer networking program while Project Lead the Way is a pre-engineering program designed to

produce engineering students before they go to college. This program offers engineering-based courses, such as Introduction to Engineering Design, Digital Electronics, Principles of Engineering Design, and Computer Integrated Manufacturing. (Sarah Walton, personal communication, November 29, 2010).

Baltimore has also emerged as a major player in the movement towards reforming high school education to help students explore careers. The Baltimore school system launched National Career and Technology Education Month, which is “part of a nationwide recognition of high school career-preparation programs that serve as pathways to the work force or supplemental training for future college degrees” (Green, 2011, p. A3). This month has come with an increasing emphasis on career preparation for high school students. Baltimore city school CEO Andres Alonso said that “since 2008, the number of career-preparation programs offered in the city schools has increased by 51% and...the number of students participating has increased by 39% to over 6,200 [students]” (Green, 2011, p. A3). The Career and Technology Education (CTE) programs in the school system represent many career fields, such as biosciences, hospitality, cosmetology, and health. Upon successful completion of a CTE program and high school graduation, students receive both trade certifications and high school diplomas. Sabinah Ilori – a senior at Patterson Park High School who participated in a CTE program – said that she now has more to offer. Of the program she says, “I may be young, but I have experience. [The] program was...a great opportunity” (Green, 2011, p. A3). CTE students not only have the skills but also the

credentials to go out into the workforce and find themselves jobs without having to go to college immediately after high school.

Career exploration has also become quite popular in Texas as school districts across the state have begun offering career and technical courses, and as 72% of high school students in Texas are taking at least one of these courses. Support for this type of education is evident throughout the state. In the Splendora Independent School District (ISD), for example, voters passed a \$3 million bond measure to build a new career and technical center (Lee, 2009, p. B1). The Fort Bend ISD has a five-year plan to include a career academy at each of its 10 high schools, including the Medical Science Academy at Hightower High School and the Global Languages Academy at Clements High School. In 2006, the Spring ISD opened Wunsche, a \$40 million campus where students “can choose from a variety of career and technical courses offered in the school’s three towers of professional, medical and technical programs” (Lee, 2009, p. B1). Robin Panovich, executive director of the Career and Technology Association of Texas, said that “the perception that vocational education is terminal is a myth because there are so many numerous opportunities to earn recognized credentials and earn college credit while in high school” (Lee, 2009, p. B1).

Schools nationwide see the importance of incorporating career exploration programs into their curricula. Although the college-for-all message is pervasive, there are many schools making efforts to reform traditional, college-preparatory American education. Opening career academies and offering students the opportunity to participate in job shadowing, internships, and mentoring has given

many high school students an important edge over their peers as they have a greater knowledge of careers and can prepare early on for post-secondary plans that will benefit them the most. Whether or not they choose to attend a traditional four-year college, these students will be more equipped to enter the post-secondary world because of their exposure to careers.

Organizations' Reform Attempts

While many schools are trying to incorporate programs to enhance career exploration, national organizations are doing the same. An example of this is the AT&T/JA Worldwide Job Shadow Initiative, which is a \$5.5 million joint effort between AT&T and Junior Achievement that provides job shadow opportunities for 100,000 students in grades 9-12 and second semester eighth graders throughout the country over five years. This project is part of AT&T Aspire, a \$100 million philanthropic program designed to address the high school drop-out crisis and committed to improving high school success. The Worldwide Job Shadow Initiative is one of the largest ever corporate commitments developed in order to address specific issues related to high school success and workforce readiness. As part of this initiative, AT&T employees team up with students and give them the opportunity to experience the world of work firsthand as they visit corporate sites and learn about the educational background and skills necessary to succeed in these jobs. Since the initiative began in 2008, the program has reached more than 65,000 students in 211 cities. Furthermore, AT&T employees have volunteered more than 25,000 times for the program, dedicating nearly 200,000 volunteer hours for these students ("Local high schools," 2010).

The national ACE Mentor Program has emerged as a program designed “to address the growing need for skilled professionals in the architecture, construction and engineering industries – a shortage that could become a crisis if current trends continue” (“ACE mentor program,” 2007). This program strives “to introduce high school students to career opportunities in the industry” and “to enlighten and motivate students toward architecture, construction, engineering, and related careers” (“ACE mentor program,” 2007). This program includes professionals from the mechanical, structural, electrical, environmental, and civil engineering fields, along with architects, interior designers, and landscape architects. The program provides industry professionals as mentors to high school students and awards the students with scholarships and grants. ACE teams, composed of 15-25 students and their industry mentors, imitate an actual design team and are guided through a mock design project by their architect, engineer, and construction management mentors. Several companies are assigned to each team and they provide one to two mentors that help the students as they work on their final project; the mentors introduce them to the careers, industry vocabulary, and various roles that the companies play in the construction industry. Throughout the school year, the teams meet for approximately 15 sessions for two hours after school and they also travel to construction sites. At the end of the year the teams gather for a final presentation night to showcase their designs.

Dr. Charles Thornton, the Founder and Chairman of ACE, says that “there are jobs in the construction industry for skilled and trained high school and college graduates alike” (“ACE mentor program,” 2007) as the construction

industry is now the second-largest employer in the U.S. with over 1 million job openings expected by 2012 (“ACE mentor program,” 2007). ACE helps to train these students for these jobs, which is beneficial to them because “current statistics project that the need for qualified, skilled individuals working in the field will far exceed the supply” (“ACE mentor program,” 2007). Ami Miller, the York County ACE Mentor Program coordinator, says that the program “helps (students) decide where they want to go in the industry” (“ACE mentor program,” 2007).

While career exploration has gained increasing support nationwide, there is still an emphasis on college, which can be seen in programs such as Advanced Technological Education (ATE) and Science, Technology, Engineering, and Math (STEM). ATE and STEM began in California through the Modesto Junior College (MJC). ATE is a two-year program offered to high school students interested in a career as an agriculture teacher. As part of this program, students attend a summer institute at MJC and receive a \$500 stipend upon successful completion of the program. College, however, still plays a central role as ATE has a specific emphasis on two-year colleges and supports science and engineering technician “career pathways to two-year colleges from secondary schools and from two-year colleges to four-year institutions” (“ATE and stem,” 2010). Furthermore, the program mainly provides educational opportunities for undergraduate students (“ATE and stem,” 2010). In order to qualify for the program, applicants must be high school seniors that plan on pursuing an associate’s degree in Agricultural Science from MJC and then transferring to a

four-year college. While ATE does prepare students for careers, it is important to acknowledge its implication that college is an important, if not necessary, stepping stone towards a successful career in one of the ATE fields.

The STEM program also has a focus on four-year college preparation, but does try to incorporate career exploration. This program is a sequence of courses or a program of study that prepares students for employment and/or post-secondary education that require sophisticated technical skills, including the application of math and science; STEM courses are science, technology, engineering, and math. STEM education begins in the elementary grades and continues through high school. In elementary school, students are introduced to the foundational STEM courses and gain a general knowledge of STEM fields and careers. In middle school, students are introduced to a STEM program of study, learn about the academic requirements for STEM careers, and begin to explore these careers. High school students continue their program of study with a specific focus on the application of the STEM subjects, and explore and prepare for STEM careers or post-secondary education related to the STEM subjects.

While the ATE and STEM programs do focus on two- and four-year colleges, they also emphasize post-secondary employment and strive to provide students with knowledge about careers. It is evident in schools and organizations throughout the country that career exploration is a popular option for high school students and has garnered much support from both employers and education administrators alike.

Career exploration programs are prevalent throughout the country, and schools, school districts, and national organizations are reforming American high school education in order to include programs that enhance career exploration. They are exposing students to different careers through vocational classes, mentoring, job shadowing, and internships. In the next chapter I will focus on one specific high school making an effort to introduce students to careers.

Chapter 4: Spotlight on Brooklyn Generation

In this chapter, I will present a school that is trying to solve the problem of students lacking knowledge about careers and non-college post-secondary options. I will discuss the background of the school, the work the teachers and students did, the work I did as an assistant teacher, the difficulties the school experienced, and the positive and negative aspects of the school. The school I will present is Brooklyn Generation in Brooklyn, NY.

Brooklyn Generation School (BGS) is a public school that opened in September 2007 as the Generation School Network's (GSN) pilot school. GSN partnered with the NYC Department of Education and the United Federation of Teachers to open BGS as a district school. It is housed in the South Shore High School campus and is part of the district's turn-around strategy for the South Shore Campus. In its first year (2007-2008), BGS served only ninth graders but today it now has approximately 225 students in grades nine through eleven. With each year, BGS will add another grade until they have students in grades six through twelve, and when the school is fully enrolled – which is anticipated to be by 2013-2014 – there will be 460 students total.

The Generation Schools Network (GSN) is a non-profit organization founded in 2004 “dedicated to systemic innovation in urban public education” (“Generation schools network,” 2010). After opening BGS in 2007, GSN expanded to the Rocky Mountain States and selected Colorado as their second region. They have formed partnerships with multiple school districts in Colorado

and are currently planning to open schools in these districts. At this time, the GSN is small and looking to expand. The GSN model follows these six principles:

1. Reduce the class size by cutting the core class sizes in half without adding more staff than a typical school
2. Expand the school year to 200 days
3. Expand the school day
4. Increase professional development and provide common planning time daily for all teachers
5. Enhance the capacity of teachers to collect, analyze, and respond continuously to data
6. Leverage current and emerging instructional technologies in the classroom

The leaders of the Generation Schools Network believe strongly in teacher effectiveness as a “leading indicator of student achievement” (“Generation schools network,” 2010). GSN provides enough teachers in high-need schools with well-prepared, effective, and engaging instruction so that both the students and teachers can succeed. In an effort to improve teacher effectiveness and increase the student-teacher ratio in high schools, Generation Schools provides support to schools, districts, and teachers unions that are a part of the network, as they transfer to a new operational model.

The GSN model has three types of courses: foundation, studio, and intensive. Foundation courses are the core of the model and are separated into two 85-minute courses each morning that all students take. Studio courses are hour-

long additional required courses, electives, or mandated services – such as arts and music, foreign language, fitness, advanced sciences and technology, remediation or enrichment, and counseling – that occur three times daily in the afternoon and last between six and eight weeks. Generation Schools says that “the youth development and enrichment programs [they offer as studio courses]...motivate [students] to stay in school [and] are particularly important for students...at risk of dropping out” (“Generation schools network,” 2010).

Intensive courses, which all students must participate in, occur twice a year for one month at a time and are rigorous, credit-bearing courses modeled after intersession programs at universities; they expand upon essential English and math instruction. During these courses, students visit college campuses, corporate boardrooms, community organizations, and public services. The courses are designed to prepare “students with the academic skills and knowledge they need to be accepted into post-secondary education, and the life skills and experiences to succeed once there” (“Generation schools network,” 2010).

In June 2010, I worked as an assistant teacher for one of three classrooms in the Career and Exploration Program at BGS. All ninth grade students are required to participate in this program, which is intended to introduce students to various careers. During this month, the ninth grade students break off into three different classrooms that each focus on one of the following career fields: 1) medicine, 2) the music industry, 3) the environment. Before the program begins, the students rank the classes, and they usually get their first choice class. The goal of the program is to introduce students to careers and teach them how to pursue

these careers through site visits and partnerships with businesses and employers. While the teachers strove to increase students' knowledge of careers, some teachers also tried to introduce their students to and help them develop the skills necessary for success in these careers and in careers in general.

The focus of the class I worked with was careers in the medical field. The teacher wanted all of her students to understand what a career in the medical fields entails and what steps students need to take if they want to pursue a medical career. During this month, guest lecturers visited the classroom and students traveled to college campuses and businesses in New York City.

On the first day I arrived, Ms. Johnson¹ told me that she did not want to teach her students only about medical careers and that she did not intend to fully focus on these careers. Instead, she wanted to give her students an overall awareness of various types of careers. I felt that this disadvantaged the students that joined the class because they were interested in medical careers and wanted to learn more about them. As I will explain later, her lack of focus during the class often resulted in classwork that seemed both disconnected and confusing.

The bulk of the class, especially the speaker discussed below, was unrelated to careers in the medical field. Lawrence "Emissary" Coles III, known as the rapper Paradigm, from Speak Lyfe Entertainment – a music company devoted to spreading the gospel of Jesus Christ through entertainment mediums – and his brother came to speak to the class about their company and how they founded it. They emphasized the struggles they endured in high school, how they overcame these struggles, and when they realized their passion for music and

¹ This is not the teacher's real name

decided to pursue it as a career. They explained the creative process behind their work, the production of their music and CDs, and the work that goes into starting and running a business. The bulk of what they spoke about was their high school experiences and how they conquered their struggles because of their passion for music and their desire to succeed after high school. They were not trying to introduce the students to music production and careers in that field, but instead they were trying to inspire the students, to show them that no matter how much you struggle, you can still rise above and become successful as long as you have your eye on your ultimate goal and do everything you can to reach that goal. They went around the class and asked each student their goals after high school, what careers they were interested in, and how they planned on pursuing those goals and/or careers.

They then taught the students the lyrics to the chorus of one of their songs, “Paradigm Shift,” which is about always having a goal in mind and doing everything you can to reach that goal, and they taught them a short dance to go along with it. They performed their whole song and when they got to the chorus, they had the students perform that part. After that, the whole class went to the library and Paradigm and his brother performed some of the songs on their CD and got the students involved by having them stand up and perform with them.

While their visit was inspirational and got the students engaged and inspired, it had no relevance to medical careers and instead served only as a motivational tool for the students. This motivational aspect was beneficial for the students as it got them thinking about what they want to do in the future and how

important it is to have goals, especially post-secondary ones, and to begin planning for those goals early on. I also believe that the students were inspired by the visit and that they not only began to see the importance of planning for life after high school, even as freshmen, but also that they became excited about all the possibilities of what they can do after high school and in their professional futures. They did not, however, learn much about careers related to music production or careers in the music industry, and they did not learn anything about medical careers, which was the focus of the class. The visit therefore seemed somewhat disconnected from the purpose of the class. Although the students did learn a minimal amount about a career, they did not learn as much career-specific knowledge as I would have expected from a class devoted to career exploration.

The students also went on field trips during this month. One of these was their visit to the Sophie Davis School of Biomedical Education in Manhattan. The Sophie Davis School is a City College of New York that was founded in 1973 in order to recruit underrepresented minorities into medical careers, to increase medical services in historically underserved areas, and to increase the availability of primary care physicians. High school seniors can apply to Sophie Davis and, if accepted, students can choose from one of two degree programs: the Biomedical Education (BS-MD) Program or the Physician Assistant (PA) program. The BS-MD program is designed as a seven-year integrated curriculum leading to Bachelor of Science (B.S.) and Doctor of Medicine (M.D.) degrees (“Sophie Davis school,” 2010). Students do their first five years at Sophie Davis and then transfer to one of six medical schools in New York that Sophie Davis has a

partnership with. The Physician Assistant (PA) Program is an upper-division baccalaureate program that can be completed in 28.5 months. In this program, , students study various medical subjects and partake in clinical clerkships in New York City Health and Hospital facilities and neighborhood health care centers.

While visiting the school, the students spoke with the director of admissions and three current students at Sophie Davis. The current students talked about their high school experiences that led them to their decision to come to Sophie Davis, what program they were in, what courses they were taking, and how much time per week they spent for each of their courses. The high schoolers were then able to ask the students questions, and they asked questions such as the type of work they do, how much time outside of class they spend working, and what their plans are for after they leave Sophie Davis. The director of admissions then spoke with the students about the admissions process and what students should do in high school in order to be accepted into Sophie Davis. He told them about what they look for, including GPAs, test scores, and work experience, and about the interview process. He tried to impress upon them the importance of doing well in high school if they are interested in Sophie Davis or in any other post-secondary education program.

The students then toured the school and the campus and visited an anatomy lab where they met with the gross anatomy diener who was in charge of running the lab. He explained what his students do in the lab and how they progress from year to year in their lab coursework. He then demonstrated some of the work that the students do by removing organs – the heart, stomach, and brain

– from their jars and showing the important parts of the organs, where the students make dissections, and what they look for once they have made the dissections. The students were all captivated by the demonstration and although they had the option to sit outside in case they got queasy, only one student did and the rest were actively engaged in the demonstration. They paid perfect attention to the diener the entire time, asked him a lot of questions, and held and examined the organs. I thought that the visit was very beneficial to the students because not only was it related to the class with its medical concentration, but also because they learned about a unique post-secondary option beyond the traditional four-year college. As an accelerated degree program, Sophie Davis recruits high school students, which was important for these ninth graders to see because it illustrated the fact that careers are something that can and should be thought about in high school.

Another day we visited an architecture firm owned by a well-known, successful architect known for his innovative, creative work throughout the country. Although the owner was not there, one of the architects from the firm did a presentation for the students in which she spoke about architecture careers and presented the firm's work. First she talked about her decision to become an architect and the steps she took to pursue that decision. When she discovered her interest in architecture, she attended a summer architecture program for high school students and this program solidified her desire to be an architect. She soon realized, however, that architecture requires both art and math skills, but that she was not very good at art. Her math skills, however, were so superior that she was

able to get by without having superb art skills. Throughout high school, she continued to partake in architecture programs and took many math and art courses, determined to develop better art skills. When she went to college, she majored in architecture and found the job at this firm after graduation. I believe that hearing her story showed the students the importance of thinking about careers at a young age in order to adequately prepare for these careers after high school. By exploring her career interests early on, she made valuable use of her high school experience and excelled as an architect.

After this talk, she made a presentation in which she focused on four projects the firm's owner had done on a house, an apartment in the city, a public high school, and a school for kids with special needs. For each project, she told the students the client's requests and the project's budget, showed them the blueprints, explained the plans for the building, and showed the before and after pictures of the project. When she showed the blueprints, she also brought up the pictures and walked the students through the architect's process. When describing the process, she made sure to explain how the architect fulfilled the client's requests based on the project's budget. She spoke about each project's obstacles and how he successfully overcame these obstacles; for example, for the special needs school, he could not put in bright lights because they were too distracting for some of the students and therefore he had to find a way to change the lighting without exceeding his budget. After this, she showed the final project and opened the discussion to the students. The students asked many questions, mostly specific ones about the buildings, and they genuinely seemed interested in her

presentation. Though none of the students had indicated a specific interest in architecture, they still seemed fascinated by her presentation and the presentation may have even sparked an interest in architecture for some of the students.

After the presentation, she showed the students around the firm, and they talked to the employees and looked at models of the firm's projects. The employees described the models to them and showed them the computer programs required for architecture. The students learned that architecture is much more than just drawing a picture of a building, but that it involves both math and art skills, and dedication to and passion for the work. She made it very clear that these skills are necessary for success in architecture and that there is a lot of work involved in architecture; she emphasized the need for students to begin planning early if they are interested in pursuing architecture, and gave them recommendations for high school architecture programs to explore. She said that by planning for an architecture career while in high school, she had a head start that gave her an advantage over her fellow students when they graduated high school. She really impressed upon the students the importance of career exploration and I think that this was the most important visit during the month.

While Ms. Johnson wanted to introduce the students to careers, she also wanted them to develop skills, such as written communication, professionalism, work ethic, and time management. As part of this, she had the students keep a journal that they wrote in each day. They were given free rein to decorate their journals however they wanted and to write whatever they wanted, and she would then read the entries each day. She did not intend for these journals to be graded,

academic assignments, but instead she wanted the students to get comfortable with writing so that they could improve their written communication skills.

Ms. Johnson also placed a strong emphasis on professionalism, especially during guest lecturers and site visits. In order to make the students more professional, she required that they dress professionally for their site visits. The boys had to wear slacks, a button-down shirt, and a tie, while the girls had to wear dress pants or skirt and a dress shirt, or a dress. She was very serious about this requirement and if a student came to class not dressed the way she told them to, then she made them go home and they were not allowed to go on the visit. The majority of the students always showed up in professional attire and acted very respectful when they visited the sites and when speakers visited them. After each visit or after a speaker came, the students then wrote thank you letters. Ms. Johnson gave a brief lesson on how to write a proper thank you letter and she read each of the letters before sending them out to make sure that they met her standards. She made sure the letters had the correct format, spelling, grammar, and punctuation. She was very critical of these writing structures in their thank you letters.

Another skill that she stressed was attention to detail because she believed that the students lacked this skill and that it was a very important one to have. In order to develop this skill in her students, Ms. Johnson brought them to the school's baseball field where they focused on one object and drew that object. She wanted the students to draw the object accurately with intense detail. For example, if a student drew a leaf, the student had to draw all the veins and all the

different shades of green in order to reflect how that specific leaf looked. The students also did a similar assignment at a park near the New York Public Library.

While the class was not fully classroom-based and did incorporate some aspects of career exploration, I found that in general it lacked focus and that the students did not do enough career exploration activities. For the majority of the month, the students did in-class assignments and used their journals. For one of the assignments, they had to read one chapter in William Coplin's book *10 Things Employers Want You to Learn in College*, write a journal entry, and make a 5-minute presentation about the chapter. For another assignment, they had to type a 2-page paper about the careers they were interested in; the purpose of this assignment was to build upon their typing skills and use of Microsoft Word.

Although the above assignments did help the students develop some skills, they were often disconnected from careers and seemed like work that students might consider irrelevant. The only time they really learned about careers was during their visits to Sophie Davis and the architecture firm, and somewhat from Paradigm's visit; as a career exploration class with a concentration in medical careers, they should have had more introduction to careers, specifically those in the medical field. I do believe that the students gained awareness of various careers – such as music producer, doctor, and architect – and that they began to learn what careers they may be interested in, but I do not think that they learned enough. Furthermore, I thought that the teacher focused more on skill

development than on career exploration, which meant that the students may not have gained enough knowledge about careers.

While at Brooklyn Generation, I not only observed the classes but also I taught each of the three classes for one day. I used the American Dream and Skills Self-Assessment (version C) lesson plans developed by the 3CSkills Collaborative (*see appendices 1.1 and 1.2*) – an organization that provides resources to develop high school student’s skills that are necessary for success in college, careers, and as citizens. The American Dream lesson plan was an interactive one that introduced students to the 38 skills (*see appendix 1.3*) developed by William Coplin in his book *10 Things Employers Want You to Learn in College*, while helping them practice some of these skills. First I asked students what they thought the American dream was and I wrote their answers on the board, and then I asked them who they thought represented the American dream. I then briefly told them Oprah Winfrey’s story – how she had a poor childhood but worked hard and built herself up to be the star that she is today – and said that her story represents the American dream. I asked the students to list some of the skills they thought helped her become successful and wrote those on the board. The students were then divided into groups of 4 or 5 and told to make a poster with a slogan, logo, and picture that presented their idea of the American dream. They had ten minutes to complete the activity and five minutes to present their poster to the class and a panel of judges, which consisted of three teachers from the school. After the presentation, the judges each provided a score for the

posters and their scores were then averaged together, and the group with the most points won.

I believe that this activity was beneficial to the students because it engaged them in the class and improved upon many of the skills necessary for success in careers and in life – such as teamwork, time management, leadership, and work ethic. The students enjoyed the activity and seemed genuinely interested in the topic and the work they were doing. The majority of the students paid attention and did not once interrupt me and they even began a long conversation about the American dream and what they think it should mean. I found the activity useful for the students. In every class I worked with, the competition activity was the most successful and really got the students interested and, more importantly, actively engaged in their learning; however, all of the classes did struggle with time management as a few groups were unable to finish their posters on time. Some groups were missing elements on their poster or did not put much effort into either making the poster or coming up with a name, slogan, and logo. I was, however, very impressed with many of the posters and the discussion that accompanied the presentations. The activity demonstrated to the students the importance of time management, work ethic, oral communication, and leadership – all skills necessary for success in careers. I believe that allowing students to become actively involved in their learning motivates them to want to learn, to succeed in school, and to become more involved with the other students, the teachers, and the classroom as a whole.

After the poster activity, the students completed a Skills Assessment (*see appendix 1.1*) that evaluated their skill level in the 38 skills previously mentioned. The students rated themselves 1-4 and explained their ratings for each skill in 2-3 short sentences. The students had 15 minutes to complete the assessment, but during this time most of the students seemed very confused and only a few were able to complete the assessment on time; however, many of these assessments had inaccurate ratings and vague explanations. They did not understand what some of the skills were and they did not know how to rate themselves or how to explain their ratings. For example, the students did not know what the skills of “type 35 words per minute” or “motivate yourself” meant. They did not explain the majority of their ratings and when they did rate themselves, their explanations were unclear and often unrelated to their ratings or to the skills. Most, if not all, of the students did not finish the assignment due to their lack of participation – they were constantly talking to their friends and sporadically leaving the classroom – and their confusion with the assignment. After I taught each class, I handed out evaluations to gauge the students’ interest in the material and in the lesson as a whole. Most of the students rated the lesson positively and said that they found it fun and useful. There were a handful of students, though, that did not fill out the evaluations and left the class early or rated the lesson negatively because they said they were confused and bored. While I do think that the lesson was beneficial for the students, this material emphasized skill development and did not relate much to career exploration, which took away from the purpose of the classes.

At the end of the month, each class presented their final projects that they had been working on all month to the other classrooms. These projects were the culmination of what they had learned during the month. They were a demonstration of the students' knowledge of the specific careers discussed during the class. The students and teachers spent the day going to each class to observe and evaluate the projects. While the projects were good, I noticed that they were more about skills than career exploration. In the music and film industries class, the students made a video in which they did the writing, acting, filming, and editing. They did an exceptional job and it was evident that the students invested much time and effort into this video. This project far exceeded the other two classes' projects, which I thought surprising given the disorganized nature of the class. Although the class as a whole was chaotic, the students came together in the end to produce something that they were dedicated to and proud of and they taught us information about film production that I had never known before. The project was both relevant to the class's focus and beneficial to the students in that class.

For the final project in the environmental class, the students developed a short magazine about healthy environmental practices. The class was broken up into three groups that produced different parts of the magazine and each student within the group had a different position, such as editor or photographer. The students designed the magazine, crafted a cover page, wrote articles, and collected photos that corresponded with the articles. During the presentation, the students and teachers went to each individual group and listened as the students explained

the process behind their work. Not only was their work impressive, but also they did a good job presenting their work and they expressed devotion to their project. I found that I did actually learn information about the environment that I hadn't known before.

Although the students did learn a lot during this month, the program as a whole seemed disorganized and mismanaged. Many of the students seemed unmanageable and uninterested and some of the teachers lacked authority and control over their classrooms. Furthermore, students often had to leave the class for a full day so that they could prepare for the Regents or to do extra work for other classes; some students simply did not show up to class and did not alert the teachers about their absence – they would either not come to school or not come to the class. In Ms. Johnson's class, one student stopped showing up to class completely at the end of the month. Although these problems may be common in inner-city urban high schools, they were still significant problems at BGS that seemed to go unaddressed by both the teachers and the principal. The principal herself did not seem to have much involvement with the program, the students or the teachers; while she did often show up to the classes and attended the presentations, she did not try to control the students and did not seem to communicate much with the teachers or the students. The teachers seemed to lack her support, and as a result, the program lacked credibility. I believe that if she had more involvement with the classes then the program might have been more organized and focused.

Other than Ms. Johnson's class, I also sat in on and taught the two other classes; however, I was only able to observe these classes for one day each and because I spent those days teaching the classes I did not get a good grasp of what they were doing on a daily basis in the class. But I was able to see how the teachers and students interacted and gain a general idea of how the teachers ran the classes. The music and film industries class was the most disorganized of the three classrooms. Two teachers taught this class and the class was both unsystematic and chaotic. This was the biggest classroom with approximately 30 students and it was also the most mismanaged one. It was evident that the teachers were seriously struggling to handle the amount of students and the varying personalities of the students. One of the teachers was a new teacher and was overwhelmed by the class with no idea of how to manage the students. He was unable to assert his authority and it seemed as though he simply had given up. While the other teacher was able to assert some authority over the students, she did not seem to care enough to try very hard to control them and therefore the students were allowed to do whatever they wanted.

When I taught the class, many of the students not only came in late and sporadically left the classroom, but also they distracted other students by talking to each other and yelling across the room during my lesson. In this specific classroom I found that I was a more assertive teacher than the two teachers combined. When a student interrupted me or the other students, I made sure to immediately reprimand that student, asserting my authority and demanding their respect and attention. At first the teachers disciplined the students but after a

while, they let them leave the classroom in the middle of the lesson, disrupt others, and act disrespectfully instead of telling them to pay attention or to stop talking. It was hard for me to tell if they simply did not care about the class or if they were just so fed up that they did not think it was worth it to try anymore.

These classroom management problems were detrimental because the students' distractions often hindered the teachers from actually teaching; the teachers did not seem able to help the students explore careers because they were too busy trying to control the majority of the students. Furthermore, I was not able to finish the material I had planned, which disadvantaged the students, especially those who seemed genuinely interested in the material. Students that wanted to learn did not have that opportunity because of other students' disruptions. Disinterested students had no motivation to do work and therefore gained nothing from the class. The many interruptions in the class took away from the career exploration component of the class because the teachers were either too busy disciplining the students or were too confused to know how to focus the class. I also often found myself confused about many of the students' disinterest because the students had chosen to be in the specific career classes. Although they were required to be in the program, they still could pick the classes they wanted so I assumed that they would have been more interested in the classes than they were.

The environmental careers class was a little more organized but still somewhat chaotic. The teacher was strict and assertive with his students and for the most part, the students did respect him and pay attention during the lesson. There were, however, still a handful of students that had either no interest in the

class or no sense of respect for me, the other students, or the teacher. During my lesson, he did try to discipline the students and make them pay attention while I presented my lesson but there still were some that left the class early and interrupted me while I taught. Despite that, I was impressed with his interaction with the students and management of the class. He took an active interest in each of his students and had a close relationship with the whole class. He was able to have fun with his students while also gaining their respect as a teacher and a mentor.

Ms. Johnson's classroom had spectacular classroom management – most of the students respected her, paid attention in class and on trips, and seemed genuinely interested in the classroom material, the speakers, and the sites they visited. I enjoyed working with many of the students in my class because, for the most part, they were well-behaved, respectful, and engaged. When I taught my lesson plan, they acted up in the beginning but eventually gave me the same respect that they gave her. They took a genuine interest in my lesson and treated me like an actual teacher. I found talking to them engaging and inspiring because they took an active role in their academic and professional futures and were motivated to succeed in school. They asked me many questions about Syracuse University and talked to me about the colleges they were interested in.

Ms. Johnson's class was by far the best class out of the three. She had the best classroom management. She had a close relationship with each of her students and they had the utmost respect for her. She invested much time and effort into her students, both in and out of the classroom. Anytime a student did

not show up to class or did not complete their assignments, she called their parents immediately to inform them. She expected a lot out of her students and refused to accept late work, to tolerate disruptions in the classroom, and to allow her students to arrive to class late. She locked the door when class started and would not let students in late, and when a student was late to class for a field trip, she left without them and called their parents to make sure that the student could get home.

She took an active role in the students' lives both in and out of the classroom and knew all of their parents personally along with important details about the student's lives. She tried to tailor parts of the class to each student's particular interests. When a speaker came or they visited somewhere, she mentioned the students who were particularly interested in that specific career. She worked hard to make sure that each of her students had opportunities to pursue their interests. For example, there was a summer program available to high school students interested in medical careers and she not only provided the students with the applications, but also she wrote their recommendations, reviewed their applications, kept in constant contact with the head of the program, and ensured that the students handed in their applications on time. Ms. Johnson was completely devoted to her students and strived to ensure that they all had the chance to succeed in high school and beyond.

One of her tenth grade advisees told me that Syracuse had always been her number one choice for college. She not only was interested in Syracuse but also was interested in medicine and was accepted into one of the accelerated summer

programs. I began to form a relationship with her and kept in contact with her after I left, striving to mentor her and help her develop skills she would need at Syracuse or for any post-secondary education. I put her in contact with Professor Coplin, who administered the Skills Assessment to her, advising her as she worked on it. Though she did not work with Coplin for very long, she did begin to learn about skills, which I believe was beneficial to her.

I think that one of the big problems with the classes and the program as a whole was the lack of focus. I often found myself confused as to what exactly the teachers were trying to teach and I think sometimes the students were confused as to what they were supposed to be learning. While there was talk of careers, the program seemed less focused on career exploration – gaining an awareness of their preferred careers and available careers – and more about developing skills the teachers believed were necessary for success in school and in careers. It seemed that the teachers were trying to teach the students skills specifically for those careers and not trying to help them learn about the careers – for example, the tasks performed and necessary responsibilities for careers in that specific field.

Unfortunately I was only able to sit in on one class for the full month so I do not know exactly what the other teachers taught daily, but Ms. Johnson's class did not fully introduce students to careers. The bulk of the class should have been devoted to career exploration, but instead it focused on in-class assignments and homework unrelated to medical careers or to careers in general. While there were some students that I believe learned more about careers they may be interested in, there were many students that did not take away enough about the class in

reference to careers. The class lacked structure and a clear plan. Furthermore, once I left the school I found out that Mr. Smith² – the teacher from the environmental careers class – had left for an unidentified reason and Ms. Johnson stopped communicating with me, which may further indicate the disorganized nature of the program.

What I think BGS suffers from is its age – the fact that it was just recently founded and hasn't fully established itself. Though BGS has received national recognition as a successful school, I saw first-hand that there were many problems in the system. There is an even deeper problem inherent in BGS and in the American education system in general: the struggle between teachers and students. Teachers must assert authority over their students in order to gain their respect, ensure classroom management, and effectively teach them. But many teachers struggle with this, especially in high school where the students are still young and immature and are often more interested in their friends than their studies. Many students at this age are still developing both emotionally and mentally and are at the peak of their adolescence – all factors that can lead many students to act disrespectful, careless, and negligent. Some teenagers tend to disobey authority and act rebellious as they struggle to find their independence. While this behavior is seen most in the home, it often crosses over into school. As a result, many students at this age often struggle to pay attention in class and especially to their teachers, or act lazy and remove themselves from the class. This problem was pervasive at BGS and it seemed that little was being done, either by the teachers or the administration, to counter it.

² This is not his real name

While many teachers strive to change their students' behavior and motivate them to take interest in their studies, they often find that their efforts are futile. Teachers can get frustrated and some even give up on the so-called trouble students, focusing instead on the top-notch students who they know will always succeed academically. Many of these "trouble students" then get left behind and their success may depend upon very dedicated teachers willing to invest a lot of time both in and out of the classroom – these teachers, however, are few and far between. I witnessed this problem first-hand at BGS. Many of the students were rowdy and inattentive, which compromised the teachers' efforts no matter how determined they were. There was a lack of control and organization at the school and in the program that only perpetuated this problem. Those in the school struggled to handle many of the students and some of the teachers seemed to have poor teaching practices. These problems made it difficult for the teachers to teach the students about careers and for the students to learn about careers, which took away from the career exploration focus of the class.

While there were many problems that compromised the efforts of the school and the teachers, there were also many positive aspects of BGS and its career exploration program. The program did seem to motivate some students, get them interested in different careers, and help them develop some important skills – such as oral communication, professionalism, and time management. After working with the students for a month, I believe that many of them did gain an interest in their professional futures and were beginning to actively pursue their career goals. Some students were accepted to accelerated summer programs that

allowed them to take advanced courses and partake in internships. Furthermore, when I spoke to some of the students, they seemed genuinely excited about the programs and about their academic and professional futures.

Although the students were learning about careers, there still was a central focus on college. There were some college posters and banners lining the hallways and in the classrooms. The teachers talked about college as a goal for all the students and the students were very interested in my college experience. They asked me many questions about my experience at Syracuse but often their questions revolved more around my social life – specifically the partying aspect – than around my majors, classes, and my plans after college. I specifically remember one girl asking me what the parties are like in college.

Though not all were interested in the partying, many still were interested in college as a primary post-secondary pathway and drew pictures of their favorite colleges in their journals. Although it is good for the students to have a goal in mind, especially as early as the ninth grade, it is still important for them to see more than just college and to know that there are other paths they can pursue after high school. The other post-secondary paths were not promoted or even talked about and careers were not always emphasized as a viable option after high school. Careers were often talked about in the context of post-college and not as something that they could start planning for and pursuing either while in high school or after high school graduation.

While the career exploration program at BGS suffered from many problems – specifically with the organization and management of the program,

the classes, and the students – it did also help the students explore careers and I believe it is a beneficial program for the students that will hopefully continue to improve as the program, the school, and the Generation Schools Network grows and expands.

Chapter 5: Program Proposal

In this chapter, I will present a brief proposal for a four-year career exploration program for high school. This is not a proposal for an actual high school and is also not an actual plan to implement this program at a high school. I will use information from my research, interviews with students at Syracuse, information about Generation Schools Network and Brooklyn Generation, and my own opinions to support my proposal. I will include a section about the problems that could arise upon implementation of this proposal.

Students will apply to the school in the fall of 8th grade and will partake in an extensive application and interview process. Those accepted will notify the school of their decision in early May. Those who plan on attending will then take a career survey, modeled after CHOICES Career Explorer – an interest survey offered on the Florida Department of Education’s website – to determine their preferred career fields. Based on the results, the students will then choose their top career field and be placed in a corresponding career group – called a Career Community – for their first year of high school. During their first year, the students will take four regular academic classes – writing composition; social studies I, which will include both U.S. history and U.S. geography; and statistics and quantitative research – along with one career exploration class. There will be 15 career exploration classes that will each focus on the following 15 career fields: 1) Agriculture; 2) Arts, Media, and Entertainment; 3) Building Trades and Construction; 4) Business and Finance; 5) Child Development and Family Services; 6) Energy and Utilities; 7) Engineering and Design; 8) Fashion and

Interior Design; 9) Health Science and Medical Technology; 10) Hospitality, Tourism, and Recreation; 11) Information Technology; 12) Manufacturing and Product Development; 13) Marketing, Sales, and Services; 14) Public Services; and 15) Transportation. These fields were determined based on the 15 industry sectors that the California Department of Education includes in its Career and Technical Education programs. The career exploration classes will introduce students to these career fields and the careers within each field.

In their first year, students will visit places related to their Career Community's career – for example, students in the architecture class would visit an architecture firm – have guest lecturers that are professionals in that field, and do one weekly hour of job shadowing with a professional mentor from a related company or business in the community. The teacher for the class will be a former or current professional in the designated field. The purpose of this class will not be to train students for that career field, but instead to introduce them to the field so that they can gain a general awareness of careers in that field – required tasks, tools and technology, knowledge, skills, and abilities; related experience; work setting; job training; required education level; wages and employment trends – and determine their level of interest in that field. The specific career information was obtained from O*NET Online, an online program designed to provide detailed descriptions of occupations. I have also included a Post-Secondary Education lesson plan (*see appendix 2.1*) that students may use to explore non-college post-secondary options.

After their first year, students can choose if they want to stay in the Career Community or transfer to a different one. They will spend the next three years in that Career Community and their classes will be devoted to career training. Students will be trained in the skills necessary for their specific career field and their courses will be modeled after those offered at a vocational/trade school for that specific field. They will continue with their site visits, guest lecturers, and job shadowing. Students will also intern at a local business or company. The job shadowing and internship components will be combined with related classroom instruction designed to maximize the value of these experiences. At the beginning of the school year, students will attend a career fair, apply for internships, and interview with the companies; each student will be placed at an internship site within a month from the time of the career fair. Students will complete five hours weekly at their site. The students' specific schedules will be arranged with the business or company but will typically occur after school. An internship coordinator at the school will be in charge of recruiting companies, organizing the career fair, ensuring that all students have an internship, and checking in regularly with the students and companies to ensure that things run smoothly with the internship.

The student will keep weekly logs of their hours and will write a 1-3 page reflection weekly about what they did at their internship. These reflections and logs will be handed into their teacher each week so that the teacher can make sure the students are on track and doing valuable work at their site. The internship coordinator will also receive the logs in order to track the students' hours. In their

second year, students will also take 2 classes: qualitative research; and social studies II, which includes world history and world geography. In their third and fourth years, students will either continue with their internship or will work with the internship coordinator to find another company to intern with. For the next two years, students will complete five hours weekly at their site and take five vocational classes at the school each year related to their field.

In their final year of high school, the students will be assigned to teams and will complete a final project within their Career Community; these projects will vary significantly based on the different communities and the teacher and mentors will decide what the project will be. These projects will be modeled after the design used by the national ACE Mentor Program, but the projects will be tailored to the different Career Communities. Examples of projects include: a design project in the construction, engineering, and architecture communities; an advertising campaign in the advertising and public relations communities; and a news brief in the journalism community, among many others. Several companies will be assigned to each team and will provide one to two mentors to help their students work on their final projects. Throughout the school year, the teams will meet for approximately 15 sessions for two hours after school and they will also travel to the companies. At the end of the year, the students will gather for a final presentation night where they will present their projects to the students, teachers, companies, and the students' families.

Throughout senior year, all students will work one-on-one with their guidance counselor to develop an extensive post-secondary plan; they will meet

for one hour weekly. The plan will detail what steps the student must take to pursue this plan – such as completing the SATs for college applications. Upon graduation, students will receive both a high school diploma and a certificate in their Career Community's field.

The Obstacles

This proposal is an ambitious and ideal one that would require years of work and would encounter many obstacles. It is important that the program is implemented in a school or school district that supports career exploration and vocational education, and is financially stable enough to support the new program. As is always the case, financial considerations would be a major obstacle upon implementation. As previously mentioned, many schools suffer from a lack of resources and finances for career and guidance counselors. This proposal requires many guidance counselors along with internship coordinators and the school may not have enough money to hire these staff. It is therefore crucial to form partnerships with national organizations and, most importantly, to receive a grant for implementation of the program.

It would also probably be difficult to find professionals willing to teach a high school class as they may lack incentive, be busy, or may not be invested in career exploration programs for high school students. This obstacle, however, could be avoided by offering the professionals a yearly teacher's salary. A crucial component of this school is the internships and job shadowing component, which requires extensive communication with local businesses and companies. When implementing the program, it will be important to reach out to the community and

form strong partnerships with companies that will be willing to devote time to mentor and to take on interns. The internship coordinator will contact some of the local companies – at least one for each of the 15 career fields, if possible – and then pick at least one person at each company who would act as the mentor and internship supervisor for the students in the related Career Community. The companies would agree to take on the students as mentees and interns, which I believe they would be more likely to do because interns provide free labor.

There may not be enough people willing to sacrifice their jobs to be teachers in the Career Communities when they had not previously taken on that role. The location of the school or school district where the program is implemented is important because there must be high student interest so that enough students participate in the program. The following information about BGS shows that career exploration programs do have both high student and parent interest. BGS scored in the top five of the 40 comparison schools in attendance (“Generation schools network,” 2010) and the school’s administrators surpassed their enrollment goal, with 80% of incoming freshmen selecting BGS as one of their top three choices. If the program is implemented in a school in an area where career exploration programs are popular, then there is a possibility that many students will apply to the school and that the program will be successful.

This proposal is ambitious but I believe it is one that will be beneficial to students, with its focus on career exploration and career preparation. I have used my research to inform my decisions, and therefore I believe that the program has both credibility and practicality. Career exploration programs are an important

component of high school education and are both necessary and beneficial for all high school students.

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Appendix 1.1

Initial 10 Things Skills Self-Assessment

ASSESSING YOUR SKILL DEVELOPMENT

- 1 = Poor
 2 = Fair
 3 = Good
 4 = Excellent

SKILLS

Work Ethic	Rating 1-4
-------------------	-------------------

- | | |
|---|-------|
| 1. Kick Yourself in the Butt
Evidence: | _____ |
| 2. Be Honest
Evidence: | _____ |
| 3. Manage Your Time
Evidence: | _____ |
| 4. Manage Your Money
Evidence: | _____ |

Physical Skills

- | | |
|--|-------|
| 5. Stay Well
Evidence: | _____ |
| 6. Look Good
Evidence: | _____ |
| 7. Type 35 WPM Error Free
Evidence: | _____ |
| 8. Take Legible Notes
Evidence: | _____ |

Verbal Communication

- | | |
|------------------------|-------|
| 9. Converse One-on-One | _____ |
|------------------------|-------|

Evidence:

10. Present to Groups _____
Evidence:

11. Use Visual Displays _____
Evidence:

Written Communication

12. Write Well _____
Evidence:

13. Edit and Proof _____
Evidence:

14. Use Word-Processing Tools _____
Evidence:

15. Send Information Electronically _____
Evidence:

Working Directly With People

16. Build Good Relationships _____
Evidence:

17. Work in Teams _____
Evidence:

18. Teach Others _____
Evidence:

Influencing People

19. Manage Efficiently _____
Evidence:

20. Sell Successfully _____
Evidence:

21. Politick Wisely _____
Evidence:

22. Lead Effectively _____
Evidence:

Gathering Information

23. Use Library Holdings _____
Evidence:

24. Use Commercial Databases _____
Evidence:

25. Search the Web _____
Evidence:

26. Conduct Interviews _____
Evidence:

27. Use Surveys _____
Evidence:

28. Keep and Use Records _____
Evidence:

Quantitative Tools

29. Use Numbers _____
Evidence:

30. Use Graphs and Tables _____
Evidence:

31. Use Spreadsheet Programs _____
Evidence:

Asking and Answering the Right Questions

32. Detect BS _____
Evidence:

33. Pay Attention to Detail _____
Evidence:

34. Apply Knowledge _____
Evidence:

35. Evaluate Actions and Policies _____
Evidence:

Problem Solving

36. Identify Problems

Evidence:

37. Develop Solutions

Evidence:

38. Launch Solutions

Evidence:

*Appendix 1.2***Lesson Plan #1: The American Dream Game**

Lesson Type: Competition

Overview of the Lesson Plan: The American Dream Game is a competition-based lesson that is based on the popular TV show “The American Idol.” The game places students in teams that compete against each other for the overall prize of “The American Dream.” In the game, judges critique and score students’ performance.

Classroom Time: 45 minutes.

Homework Time: None

Materials:

1. Lesson Agenda (for teachers)
2. Oprah Winfrey’s Success Story (for teachers)
3. Game Rules (for teachers and students)
4. Judge Suggestion Sheet (for judges)
5. Evaluations (for teachers)

Computer Requirements: No

Evaluations Available: Yes

Objectives:

- Students will recognize that skills are crucial to success in college and the workforce.

1. Lesson Agenda – The American Dream Game

Min	Activities	Objectives	Materials
0-2	<p>Assign students a number 1-3 (4) as they walk in the door.</p> <p>Assign groups 1, 2, and 3 (4) to different parts of the room that will be their “team space.”</p>	<ul style="list-style-type: none"> Divide class into teams 	
3-8	<p>Introduction: Tell Oprah Winfrey’s success story, reflecting the American Dream. Through discussion with the class, define the American Dream.</p> <p>Link “Skills” to the American Dream and Oprah Winfrey’s story (Without hard work and dedication to developing skills (i.e. working with other people, verbal communication, and influencing people) Oprah would not have reached this level of success.</p> <p>Tell the students we are giving them the opportunity to pursue the American Dream through this competition. They (and their teams) will rise or fall based on their performance in the workshops.</p>	<ul style="list-style-type: none"> Define the American Dream Introduce the structure of the American Dream competition Students will recognize that skills are crucial to success in college and the workforce. 	<ul style="list-style-type: none"> Oprah Winfrey Success Story.
9-10	Handout the Game Rules. Explain that students will be in these teams, competing for the American Dream, for the remainder of the workshops. They are to abide by the game rules if they want to win.	<ul style="list-style-type: none"> Explain the American Dream game rules 	<ul style="list-style-type: none"> Game Rules W.S.
10-24	<p>Sign competition: Each group will create a team sign. The sign should include a team name, slogan, and symbol. Groups present their signs to the panel of judges.</p> <p>Judges will score each sign 1-5. Add all 3 scores. The sum of the scores equals team points.</p>	<ul style="list-style-type: none"> Working with other people. Branding & creative marketing Foster competition 	<ul style="list-style-type: none"> Example of a team sign Posterboard Markers
25-35	<p>Presentation to judges: Judges should introduce themselves and tell students how important the skills are.</p> <p>Each group presents signs to the 3 judges. Presenters should introduce themselves and team members.</p> <p>Judges should interact with presenters and each</p>	<ul style="list-style-type: none"> Verbal communication Judges might identify skills in arguments/comments Feedback on performance 	<ul style="list-style-type: none"> Judge Suggestion Sheet Judge scoreboards (x3)

	other (e.g. criticize public speaking & appearance, compliment clever ideas, and pick a fight with other judges). Personalities should be entertaining.		
36-45	Debriefing: Allow students to ask any questions they may have. Stress the importance of skills in the pursuit of the American Dream	<ul style="list-style-type: none"> • Reinforce importance of skills 	<ul style="list-style-type: none"> • None

Appendix 1.3

Everyday Skills for Career, College and Citizenship



1.0 ESTABLISHING A WORK ETHIC

- 1.1 Kick Yourself in the Butt
- 1.2 Be Honest

- 1.3 Manage Your Time
- 1.4 Manage Your Money



2.0 DEVELOPING PHYSICAL SKILLS

- 2.1 Stay Healthy
- 2.2 Look Presentable

- 2.3 Type Well
- 2.4 Take Legible Notes



3.0 COMMUNICATING VERBALLY

- 3.1 Converse One-on-One
- 3.2 Present to Groups

- 3.3 Use Visual Displays



4.0 COMMUNICATING IN WRITING

- 4.1 Write Well
- 4.2 Edit and Proof

- 4.3 Use Word-Processing Tools
- 4.4 Send Information Electronically



5.0 WORKING DIRECTLY WITH PEOPLE

- 5.1 Build Good Relationships
- 5.2 Work in Teams

- 5.3 Teach Others



6.0 INFLUENCING PEOPLE

- 6.1 Manage Efficiently
- 6.2 Sell Successfully

- 6.3 Politick Wisely
- 6.4 Lead Effectively



7.0 GATHERING INFORMATION

- 7.1 Use Library Holdings
- 7.2 Use Commercial Databases
- 7.3 Search the Web

- 7.4 Conduct Interviews
- 7.5 Use Surveys
- 7.6 Keep and Use Records



8.0 USING QUANTITATIVE TOOLS

- 8.1 Use Numbers
- 8.2 Use Graphs and Tables

- 8.3 Use Spreadsheet Programs



9.0 ASKING AND ANSWERING THE RIGHT QUESTIONS

- 9.1 Detect Nonsense
- 9.2 Pay Attention to Detail

- 9.3 Apply Knowledge
- 9.4 Evaluate Actions and Policies



10.0 SOLVING PROBLEMS

- 10.1 Identify Problems
- 10.2 Develop Solutions

- 10.3 Launch Solutions

The list of skills first appeared in Bill Coplin's *10 Things Employers Want You to Learn in College* (Ten Speed Press, 2003) and now serves as the basis for the educational materials and publications of 3C Skills Collaborative. Bill Coplin can be contacted at wdcoplin@syr.edu. Educational materials for high school and college can be downloaded free of charge from <http://sites.maxwell.syr.edu/3cskills/>

*Appendix 2.1***Lesson Plan #13: Post-Secondary Exploration**

Lesson Type: Lecture with Individual work

Overview of the Lesson Plan: This Post-Secondary Exploration Module is an educational tool that can be administered to students in the 11th grade to introduce them to and assist them in the process of exploring post-secondary options after high school graduation. Before students can use the Post-Secondary Exploration Module, they must complete the Career Exploration Module and produce individualized Career Exploration Profiles. The Post-Secondary Exploration Module should take between approximately 3 and 4 hours and should be split between 1 and 2 class periods.

History of the Lesson Plan: This lesson plan has been developed over the last year and has not been tested.

Classroom Time: 165 minutes

Homework Time: Optional

Materials:

1. Lesson Agenda (for teacher)
2. The Post-Secondary Options Slideshow (for students)
3. Post-Secondary Searching Chart (for students)
4. Post-Secondary Programs Chart (for students)
5. Career Matching Chart (for students)
6. Career and Education Chart (for students)
7. Post-Secondary Finances Chart (for students)
8. Post-Secondary Options Database is Available online for download (<http://sites.maxwell.syr.edu/3cskills>)

Computer Requirements: Yes

Evaluations Available: No

Objectives:

1. Students will understand what post-secondary options are available to them after high school graduation.
2. Students will be introduced to the searching process so that they can effectively search for various post-secondary options for after high school graduation.

1. Lesson Agenda

Min	Activities	Objectives	Materials
0-20	Reviewing the Career Exploration Profile Tell students to Review the Career Exploration Profile (CEP) that is a result of the Lesson #12.	<ul style="list-style-type: none"> Students will re-familiarize themselves with the CEP so that they know their preferred career cluster and career. 	<ul style="list-style-type: none"> The Career Exploration Profile (CEP)
20-35	Learning about Post-Secondary Options Present the Post-Secondary Options Slideshow.	<ul style="list-style-type: none"> Students will be familiar with and understand the eight major options 	<ul style="list-style-type: none"> The Post-Secondary Options Slideshow
36-45	Then tell students to download the Post-Secondary Options Database from the class website (http://sites.maxwell.syr.edu/3cskills) Tell students to Study the eight major options (could be homework).	<ul style="list-style-type: none"> Students will be familiar with and understand the eight major options 	<ul style="list-style-type: none"> The Post-Secondary Options Database The Post-Secondary Options Test
46-75	Searching for Post-Secondary Options Give students Post-Secondary Programs chart. Have students, using the Post-Secondary Options Database and the Post-Secondary Searching Chart, find programs that fit each post-secondary option. Have students, for each option, go to the corresponding website from the chart and find at least one example of a program that would offer each post-secondary option Then direct students to fill out the Post-Secondary Programs Chart.	<ul style="list-style-type: none"> Students will learn how to search for institutions and programs that offer the post-secondary options 	<ul style="list-style-type: none"> Post-Secondary Options Database Post-Secondary Searching Chart Post-Secondary Programs Chart
76-115	Matching Post-Secondary Options to Careers Direct students to access ONET's <u>Career Cluster Search</u> and find eight careers that would be best served by each post-secondary option (e.g. Find a career that would require a college degree, one where going to full-time work would be feasible, etc.) Tell students to fill out the Career Matching Chart	<ul style="list-style-type: none"> Students will understand how the post-secondary options match with careers so that they can understand how to get to certain careers 	<ul style="list-style-type: none"> Post-Secondary Options Database Career Matching Chart

116-135	<p>Hav students access ONET's <u>Career Cluster Search</u></p> <p>Tell them to find their preferred career from the CEP (in Activity 1) in one of ONET's 16 career clusters and click on their preferred career and go to the "Job Zone" section at the bottom → find what education the job requires (e.g. graduate school) and enter that information into the Career and Education Chart</p> <p>Then tell students to, with the same career, go to "Details" and then to the "Education" section at the bottom* → find what education level most respondents attained and enter that information into the Career and Education Chart</p> <p>Have them access the Post-Secondary Options Database and match the career's preferred education to a post-secondary option and enter that information into the Career and Education Chart</p> <p><i>*Not all careers have the "Education" section. If your preferred career does not have the "Education" section, then leave that part blank and fill out the other information.</i></p>	<ul style="list-style-type: none"> Students should be able to match careers to the education level required and to specific post-secondary options that provide that education level 	<ul style="list-style-type: none"> Career and Education Chart Post-Secondary Options Database Career Exploration Profile
136-165	<p>Have students refer to Student Activity 3 and for each option, determine whether the option is paid or requires payment and find the corresponding financial information (e.g. tuition)</p> <p>For each option, determine the availability of financial aid, if applicable</p> <p>Then, for each option, determine how much time is required in that option (e.g. how many years community college is)</p> <p>Tell them to use the above information to fill out the Post-Secondary Finances Chart</p>	<ul style="list-style-type: none"> Students should be able to estimate the cost (both financial and time-related) of the post-secondary options 	<ul style="list-style-type: none"> Post-Secondary Finances Chart

Optional Student Activity 7 – Repetition of Activities

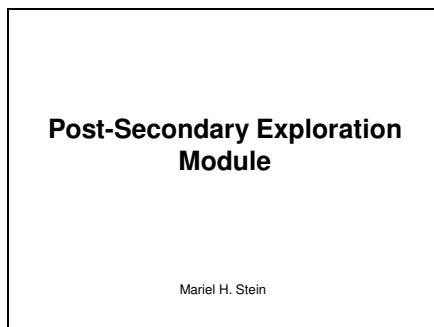
Practice is important for skill development. Teachers may choose

- 1) Have students repeat segments of Student Activities 4-6
- 2) Have students repeat Student Activities 4-6 as a whole for another career field

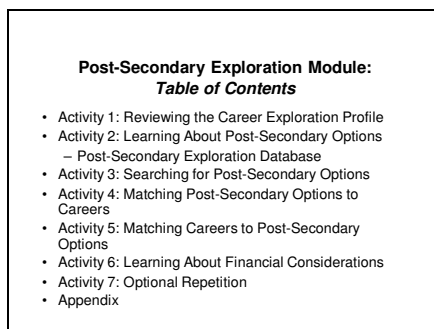
The tasks, objectives, materials, and time remain the same for each student activity.

2. The Post-Secondary Options Slideshow

Slide 1



Slide 2



Slide 3

Post-Secondary Options

- There are eight major options that students can pursue after high school
 - Traditional 4-Year College or University
 - 2-Year Community College
 - Vocational School
 - Apprenticeship Training
 - Straight-to-Work
 - Preparatory Schools
 - Military Services
 - Service Programs

Slide 4

Option 1: Traditional 4-Year College and University

- Four-year undergraduate institutions that typically provide liberal arts education
- Universities are bigger than colleges and contain multiple schools within them
- They offer Bachelor's and Master's degrees (of Art and of Science)
- Students apply in the fall of their senior year or between January and February of senior year
- Typical applications include: SAT/ACT scores, recommendations, and application essays
 - Some schools ask for additional material, e.g. portfolios
- Average private four-year college costs for 2009-2010 were around \$27,000/year
- Average public four-year college costs for 2009-2010 were around \$7,000/year

Slide 5

Option 2: 2-Year Community College

- Public two-year institutions that offer higher education and lower-level tertiary education
- After graduating, students typically transfer to a four-year institution for two to three years
- They offer Associate's Degrees, certificates, and diplomas
- They typically offer an "open door" admissions policy for students at least 18-years-old that have graduated from high school or have a General Education Diploma (GED)
- Students seeking an Associate's or certificate may need to provide an application and application fee
- Average community college prices for 2009-2010 were around \$25,000

Slide 6

**Option 3:
Vocational School**

- Institutions that teach students the skills necessary to perform a particular job
- They offer Associate's Degrees, certificates, and diplomas that can be achieved in 2-3 years
- The application process differs with each school based on the trade offered
- Tuition ranges from approximately \$500 to \$10,000 depending on the nature and length of the course

Slide 7

**Option 4:
Apprenticeship Training**

- These programs teach an occupation through on-the-job training combined with learning the relevant technical knowledge in a classroom setting
- The length of training varies from one to six years, depending on the occupation
- Training is given under the guidance of experienced master workers
- Applicants must be 18 years old or 16 years old with parental approval and they must meet the program sponsor's qualifications
- These are paid experiences

Slide 8

**Option 5:
Straight-to-Work**

- This option is for students who want to get full-time paid work after high school
- To find full-time work in their area, a student can visit an office of the Department of Employment Training (DET) or their high school Career Center
- Applicant requirements vary depending upon the job the student applies for

Slide 9

**Option 6:
Preparatory Schools**

- These schools provide an additional year of high school prior to attending college - this is called a post-graduate (PG) year
- Typically students choose to do this in order to improve their grades
- Coaches sometimes suggest this option for high school athletes
- Application processes differ for each school but applications typically include admissions tests (SSAT, etc.), recommendations, and application essays
- Costs differ for every private school and can range from "tuition-free" to close to \$45,000 per year
- Students can also receive financial aid, need-based and merit-based scholarships

Slide 10

**Option 7:
Military Services**

- There are five services in the U.S. Military:
 - Army, Navy, Air Force, Marine Corps, and Coast Guard
 - Within each service are different programs
- The admissions process differs for each program but many require that individuals be at least 17 years old, physically fit, and U.S. citizens
- There are also ROTC scholarships available that allow students to attend college while training for military services
- There are programs in the Military that help students pay for college or pay off existing student loans

Slide 11

**Option 8:
Service Programs**

- These are volunteer programs that students can participate in if they want a gap year in between high school and college
- Examples of these are:
 - Americorps
 - Habitat for Humanity
- Financial considerations vary depending on the program
 - E.G.: Americorps pays its participants a modest living allowance and sometimes provides housing

3. Post-Secondary Searching Chart

Post-Secondary Options	Search Engines
Traditional 4-Year College or University	http://directory.edufeds.com/studentedge/Education Planner
2-Year Community College	Community College Review
Vocational School	Education Planner (program search)
Apprenticeship Training	Office of Apprenticeship Sponsors (Program Sponsors Search)
Military	http://www.military.com/
Service Programs	Teen Ink
Straight-to-Work	Visit your state's Department of Labor website to search for jobs
Preparatory Schools	Peterson's (search for schools that offer a post-graduate year)

4. Post-Secondary Programs Chart

Post-Secondary Options	Programs for the Options
Traditional 4-Year College or University	
2-Year Community College	
Vocational School	
Apprenticeship Training	
Military	
Service Programs	
Straight-to-Work	
Preparatory Schools	

5. Career Matching Chart

Post-Secondary Options	Related Careers
4-Year College or University	
2-Year Community College	
Vocational School	
Apprenticeship Training	
Military	
Service Programs	
Straight-to-Work	
Preparatory Schools	

6. Career and Education Chart

Career Cluster	Career	“Job Zone:” <i>What education level is required?</i>	“Education:” <i>What education level do most people in this field attain?</i>	Post-Secondary Option: <i>What post-secondary option would lead to the required education level?</i>

The Written Capstone Summary

This summary is intended for an audience unfamiliar with the topics involved in this project by providing a written description that explains the work of the project to a general, educated audience outside the field. The summary will include the following components: 1) a description of the project; 2) a discussion of the methods used; and 3) a discussion of the project's significance.

Project Description

This project explores the problem of high school students lacking knowledge about careers and non-college post-secondary options. There are five chapters:

- 1) The Problem and its Consequences
- 2) The Causes
- 3) Reform Attempts
- 4) Spotlight on Brooklyn Generation
- 5) Program Proposal

The first chapter – The Problem and its Consequences – provides an overview of the problem and some of its consequences. Many high school students do not have adequate knowledge about careers – both the ones that are available to them and the ones that they are interested in. Many students receive little to no career guidance in their high schools, and they view their high school coursework as irrelevant and bearing no relation to real world careers.

This overall lack of knowledge about careers can have detrimental consequences for students and for the country. This problem has led to a high

college dropout rate and low attainment rates for certificates and post-secondary degrees. This has also resulted in increased high school dropout rates because students are not engaged in their high school coursework as they see it as irrelevant; high school dropouts are more likely to engage in risky behavior and have a poor quality of life. Furthermore, the United States now has the highest college dropout rate in the industrialized world and risks losing its competitive edge as other countries, specifically those in northern and central Europe, surpass us in high school graduation and college completion.

The second chapter – Causes – discusses the following causes: 1) the historic tension between vocational education and traditional academic education; 2) the standards movement; 3) the college-for-all mentality; 4) the institutional factors of American high schools; and 5) the psychology of adolescents.

Vocational education is defined as a typically non-traditional education that prepares students for careers and is often related to a specific trade, occupation, or vocation. In this thesis, I use vocational education to refer to high school education that either prepares students for careers or makes them knowledgeable about careers. I also use the term career exploration programs a lot throughout the thesis; these are defined as high school programs that allow students to explore various careers through mentoring, job shadowing, internships, and vocational classes.

The historic tension between vocational and traditional academic education is a result of the conflict between the 1892 Committee of Ten – a group of educators from colleges and universities nationwide that supported a college-

prep education for all American high schools – and the 1918 Commission on the Reorganization of Secondary Education – a group that countered the Committee and argued for a high school curriculum that could adequately prepare students for adulthood, which includes vocation.

The standards movement has recently evolved in order to standardize education by providing standards that students should meet. The Common Core State Standards Initiative (CCSSI) has risen out of this movement in order to provide a consistent and clear understanding of what students are expected to learn, and a list of the knowledge and skills they believe are required for entry-level, credit-bearing college work and for careers with growth potential and good salaries.

The college-for-all mentality, another significant cause of the problem, is defined as the belief that all students should attend traditional four-year colleges or universities. Much of the education system – including teachers, principals, administrators, and the schools – and many parents, students, and the public support this mentality. This mentality affects middle, upper-class students much differently than low-income minority students. Middle- and upper-class students not only have the financial means to attend college, but also are often expected to go to traditional four-year colleges, while low-income minority students have historically not been expected to go to college and often lack the financial resources to attend college. There are many students that would benefit from college if they had the resources but employment may be a necessary alternative for some students and a best choice alternative for others.

The institutional factors of American high schools that lead to students' lack of knowledge about careers include the competition between some high schools to increase matriculation rates and improve their schools' reputation, the poor quality of career and guidance counseling, lack of resources for counseling, low-student counselor ratios, and the tendency of counselors not to focus enough on careers.

The third chapter – Reform Attempts – presents a list of high schools and organizations making efforts to introduce students to careers and non-college post-secondary options. The schools included in this chapter are in California, New Hampshire, Baltimore, and Texas. The organizations included are the AT&T/JA Worldwide Job Shadow Initiative, the national ACE Mentor Program, the Advanced Technological Education (ATE) program, and the Science, Technology, Engineering, and Math (STEM) program.

The fourth chapter – Spotlight on Brooklyn Generation – showcases a high school in Brooklyn, NY that is making an effort to incorporate career exploration programs into their school. During the month of June 2010, I was an assistant teacher for their month-long College and Career Program and the bulk of the information in this chapter comes from my experiences there. The chapter discusses the background of the school and the Generation Schools Network – a non-profit organization that BGS is the pilot school for, the work the teachers and students did, the work I did as an assistant teacher, and the positives and negatives of the school and its program.

In the fifth chapter – Program Proposal – I use my information from the previous four chapters to inform my proposal – but not an actual plan for implementation – for a high school career exploration program that adequately introduces students to and prepares them for careers. I also present a brief section that discusses the obstacles that would arise upon implementation of this proposal.

Methods

The methods used in this project are observations, personal communication, and research. I conducted inductive research because I felt that my information of high school vocational education was too narrow and I wanted to broaden my knowledge to see what the trend is across the country, what the causes of the problem are, and what attempts are being made nationwide to reform high school education.

I observed one classroom in the College and Career Program at Brooklyn Generation for 7 hours per day for 5 days per week for one month. I taught one class for 5 hours for one day per class for a total of 15 hours. My lesson plan included interactive, competitive activities that introduced students to skills necessary for success in careers, including work ethic, time management, teamwork, and leadership. I distributed evaluations to approximately 50 students upon completion of my lesson plan. I kept a journal in which I recorded my observations, my lesson plan, the class's daily activities, the students' opinions of the class, the teachers' opinions of the students and the teachers' plans for the class.

I had personal communication with approximately five Syracuse University students about their high schools for three hours weekly in the 3CSkills class at Syracuse University. During these three hours, I also participated in discussions regarding the skills necessary for success in college and careers and the work that high schools can do to introduce students to these skills and to careers.

For the research component, I searched for evidence of students' lack of knowledge about careers. I used past surveys, educational reports, and books that further explained this problem, its causes, and its consequences. I sought out experimental programs and models that high schools across the country were using to reform the education system in an effort to solve this problem.

Project's Significance

This project is significant to me because I will be a Teach For America 2011 corps member and will teach in Baltimore, Maryland, in an inner city. This problem of students lacking knowledge of careers is evident across the country but is quite detrimental for low-income, minority students in inner city schools. This project will provide me with valuable information that I can bring to my classroom. I believe in the power of career knowledge and vocational education and would like to educate my students about careers so that they know of all their options and do not feel a need to immediately go to college after high school but instead can pursue a post-secondary path that would be most beneficial to them.

After Teach For America, I want to develop high school curricula and the information from this thesis will guide me and show me what components of

career exploration programs have worked and what have not. This information will be beneficial and necessary for me in order to create successful curricula that not only provide knowledge about careers to students, but also prepare them for careers and further post-secondary education.